THE IMPACT OF GENERAL ELECTION OUTCOME ON INSTITUTIONAL OWNED COMPANY STOCK PERFORMANCE: EVIDENCE FROM MALAYSIA

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ABSTRACT

This study examines the effects of the announcement of the general election result on stock returns of 42 companies with government institutional holdings in Malaysia during 2008, 2013 and 2018 general elections. The study employs an event study methodology using the Market model (MM) and Market adjusted return (MAR). The findings indicate that there is a positive relationship between cumulative abnormal return and companies with government institutional holdings during event windows from the fifth day after the announcement of election result to 60 days after the event. This result implies that the market in Malaysia is semi-efficient, where investors react on the publicly available information particularly during the 13th general election. Nonetheless, the result shows that the impact is indifferent no matter which party won the election. The cumulative abnormal return shows significant positive for all three election result announcements even though in 2018, the opposition party, Parti Harapan won for the first time after 60 years Parti Barisan Nasional has ruled Malaysia. Besides, there is also evidence that institutional investors in Malaysia act as passive investors whom trade like retail trader to gain profit instead of monitoring the company to improve their performance.

Keywords : general election result, institutional investors, event study methodology, efficient market hypothesis

ABSTRAK

Kajian ini mengkaji kesan keputusan pilihanraya umum terhadap pulangan saham pada 42 syarikat awam dengan pegangan pelabur intitusi kerajaan di Malaysia semasa pilihanraya umum pada tahun 2008, 2013 dan 2018. Kajian ini menguji hipotesis yang dikaji dengan menggunakan metodologi kajian peristiwa dengan kaedah *Market Model (MM)* dan *Market Adjusted Return (MAR)*. Hasil kajian mendapati bahawa terdapat hubungan positif pulangan abnormal kumulatif oleh syarikat dengan pegangan peabur intitusi kerajaan dalam tempoh tingkap acara bermula seawal hari ke lima selepas pengumuman keputusan pilihanraya umum hingaa hari ke 60 selepas peristiwa. Ini menunjukkan bahawa Malaysia mempunyai pasaran separuh cekap di mana pelabur bertindak terhadap maklumat awam yang diperolehi terutamaya ketika pilihanraya umum ke 13. Walaubagaimanapun, keputusan pilihanraya dilihat memberi kesan sama tanpa mengira parti yang menang ketika pilihanraya. Pulangan abnormal kumulatif menunjukkan kesan positif selapas pengumuman keputusan ketiga tiga pilihanraya walaupun semasa 2018 pilihanraya umum di Malaysia dimenangi Parti Harapan Rakyat selepas 60 tahun di pegang oleh Parti Barisan Nasional. Selain itu, didapati bahawa pelabur intitusi di Malaysia bertindak sebagai pelabur pasif di mana mereka hanya melabur untuk memperoleh keuntungan, bukan nya sebagai pemerhati untuk menambah baik prestasi syarikat dilabur.

Kata Kunci: keputusan pilihanraya umum, pelabur institusi, metodologi kajian peristiwa, hypothesis pasaran yang cekap

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LIST OF ABBREVIATIONS

MM	=	Market Model
MAR	=	Market Adjusted Return
EMH	=	Efficient Market Hypothesis
FBMKLCI	=	FTSE Bursa Malaysia Kuala Lumpur Composite Index
GLICs	=	Government Linked Investment Companies
BN	=	Barisan Nasional
PH	=	Parti Harapan
PR	=	Pakatan Rakyat
RTM	=	Radio Television Malaysia
AR	=	Abnormal Return
CAR	=	Cumulative Abnormal Return
CAAR	=	Cumulative Average Abnormal Return
ROA	=	Return on Assets

CHAPTER ONE

INTRODUCTION

1.0 Introduction

Stock prices are the result of inhuman volatility expectations. The nature of human behavior is the main direction of changes in supply and demand in the market. This situation causes oscillation in prices. Fluctuation in prices is the natural process of the changes in expectation which look like a cycle in the market. Many kinds of sequence and variable could drive the changes. Political cycle is one of the cycles in the market. Political cycle include election, changes in ruler or authority and war. Investors in modern financial markets have a significant amount of diverse information such as corporate earnings report, macroeconomic indicator, political statement and news which include election outcome.

The risk-as-feeling model by Lowesntein, Hsee, Weber, and Welch (2001) revealed that the person's feeling is affected by the cognitive evaluation that can lead to the behavioral response. This model explained why the emotions of the voters are crucial in determining the winning party during the election. The emotional factor possibly influences the voter’s decision-making during the election. The incumbent political parties usually will make a decision that biased against voter's need to gain support.

Fama (1965) in his statistical regression has confirmed that the stock prices are correlated with future economic activity. During the general election, the confidence on the party that is elected will reflect in underlying financial condition, which is vital in determining stock prices. Whenever there is an optimistic feeling by investors on future economic, they will decide to invest in the stock market. In contrast, whenever the investors feel insecure about the economy future, they will choose to exit from the market. The event of the general election remarked as a unique and historical event in

all countries. During the pre-election period, the campaign promises made by the candidates can affect the emotional and behavior of the public and investors. This cause dramatic changes in the stock market. However, the post-election effect might be caused by several factors such as the change in political orientation, the narrow margin of victory or the losses of favorite by public unexpectedly.

The Efficient Market Hypothesis (EMH) introduced by Fama (1965) assume that financial market incorporated all public information which then, affect the share price to reflect all relevant information. Correct information is essential to form a better expectation by investors. The more efficient the market, the more random sequence of price changes generated by the market which lead to the completely random and unpredictable price change in the stock market.

The role of institutional investors can be described in the scenarios introduced by Shleifer and Vishny (1986) which is active monitoring and passive monitoring. The active monitoring by institutional investors will be likely to result in improved firm performance because institutional investors are considered as large and sophisticated investors that can give incentive and expertise to monitor the management. The passive monitoring, on the other hand, is based on the argument that institutional investors might be the short term investors who are acting like common traders (holding or selling stocks according to their portfolio) instead of monitoring the management and improving the corporate governance in the firm

Election and stock market is closely related considering the risk and investor's behavior. The uncertainty of the winning party after the election may result in the disposal of shares by investors and neglecting the real value of the stocks. Many studies have been done to see the impact of the election on the stock market. The result varies depending on people's choices. In the US, every election has come with the poll before the election. A study by Levil and Yagil (2015) shows that if the people's

favourite led the ballot, it would have a positive cumulative abnormal return in the market until the announcement of the election result.

1.1 Background of Study

1.1.1 General Election in Malaysia

The election in Malaysia exists at two level, federal and state. The most significant and most important election is at the national level where voters will select the 222 members of Dewan Rakyat (House of Representatives). Any party that won the majority seats in the House of Representative will form the federal government. This general election must be held at least once every five years. The campaign period in Malaysia runs from the nomination day until polling day. However, since 1999, the public radio station, Radio Television Malaysia (RTM) was controlled entirely by the government where the manifestos broadcasted is only coming from government (Barisan Nasional during that time). The policy has restricted the proclamations by opposition being transmitted anywhere in public station in Malaysia (Ingram, 1999).

Evidence from the previous studies shows that there was significant election effect in stock performance for the last general election held in Malaysia (Jiun, 2018; Liew & Rowland, 2016; Yusoff, Salleh, Ahmad & Idris, 2015). Malaysia has undergone 14 series of the general election for the past 60 years. 12th and 13th Malaysia general election has shown a significant impact on stock market volatility compared to the previous series of election (Jiun, 2018). This situation caused by the close fight between two major parties. Prior to 2008, the general election result in Malaysia have never been unexpected as the incumbent coalition, Barisan Nasional (BN) won in the substantial two-third majority in all general elections. However, the 12th general election in 2008 was the first time BN lost the two-thirds majority in Parliament. The tense continues in 2013 during 13th general election where BN still won but with a

lower number of seats compared to 2008. The 14th Malaysia general election on 9th May 2018 has been marked as history when the first time since independence, the opposition (Pakatan Harapan) defeat the incumbent coalition (BN). Table 1 below shows the election date and percentage seats of 12th, 13th, and 14th Malaysia general election.

Table 1.1
Malaysia 12th, 13th, and 14th General Election

	Election date	% Vote	
		Barisan Nasional	Opposition
12th general election	8 March 2008 (Saturday)	63.06	36.94
13th general election	5 May 2013 (Sunday)	59.91	40.09
14th general election	9 May 2018 (Wednesday)	43.69	*56.31

Source: own compilation based on information from Election Commission of Malaysia
* In 2018, the opposition (Parti Harapan) has won the majority seats and form the federal government which makes them the government party.

Table 1.1 above clearly show the reducing of interest by voters on previously incumbent Barisan Nasional since the 12th general election in 2008. The interest in government during that time continue to decrease until 2018 when finally, the opposition (Parti Harapan) defeated Barisan Nasional and form a new federal government when they won majority seats of two-thirds.

Previously, during the competitive fight between incumbent and opposition in 12th and 13th Malaysia general election, there was a significant reaction in FTSE Bursa Malaysia KLCI (Jiun, 2018). Figure 1.1 below shows the FTSE Bursa Malaysia KLCI from February 2018 until January 2019.

Figure 1.1
FTSE KLCI Index from February 2018 until January 2019
Source: Yahoo Finance

From Figure 1.1 above, there was a fall of -0.74 percent in KLCI index two days before the general election which is 9th May 2018. However, the stock market increases back by 1percent the day before the event. The trend shows a slight increase when the market opens again on 14th May. The sudden drop happened around a fortnight after the event where there is a drop by -3.8percent. After that, the Malaysia stock market shows a fluctuating trend in these past seven months after the new government elected. However, the index shows a downward trend almost all the time with the lowest value in 18th December 2018 when the index falls to 1,635.31. in terms of volume, the highest buy happened after the general election where the recorded transaction is 402.49M shares compare to 179.71M shares unit before the election day. The highest selling volume can be seen on 5th November 2018 with 516.42M shares which overcome the most top-selling amount since the establishment of new government.

1.2 Problem Statement

The view on past works of literature has seen a vast amount of studies that are focusing on the impact of political risk and market performance. For the past decades, most studies have agreed that political risk include the event of general election (Belo, Gala and Li, 2013; Chuang & Wang, 2010; Durnev & McGill,2010; Kim,Pantzalis &Park, 2012; Lehkonen & Heimonen, 2015; Li, Li & Xu, 2017; Liu, Shu & Wei, 2017; Jens, 2017; Menge, 2013; Shen, Bui & Lin, 2017; Winiewski, 2016; Yusoff, Salleh, Ahmad and Idris, 2015). Major democratic countries[1] have always been subject of interest by researcher because of their high competitiveness and significant impact on the market for each cycle of the ruling (Chuang & Wang, 2010; Wang, Lee, & Lin, 2015). For major democratic countries, there were polls available before polling day to predict the real election outcome which is beneficial to investors during the election period. This poll creates a cushioned impact or less shock upon the announcement of the winning party.

Furthermore, it is common for most countries to witness the changes in the incumbent in every or some cycle of the ruling. Some literature on political differences has agreed that there is a significant impact on market performance depending on the winning party. In contrast, Malaysia has never been ruled by the different government for the past 60 years. In 2018, the incumbent (Barisan Nasional) lost for the first time in history. This makes the opposition (now government), Parti Harapan to form the new federal government. Since the formation of a new government involved a new front of peoples to govern the country, the question arises whether this new government can make Malaysia better than the so long-ruling party, Barisan Nasional. This sentiment is important because it can affect the investor's decision on investing

[1] Major democratic countries are large country that have presidential election after each ruling cycle. In literature used for this study, major democratic countries are United State, Japan, the United Kingdom and France

in Malaysia market. Since past literature has shown evidenced that 12th general election and the 13th general election has demonstrated a significant impact on Malaysia market performance because of the close fight between incumbent and opposition, it is vital to further the study on the effects when the opposition won the fight during the general election. Besides, there is also numerous numbers of literature that discover the significant impact of institutional holding on firm performance. Government holding was known as one of the largest institutional investors in Malaysia company. Government holding in a company is found to reduce the effects of political uncertainty (Zhou, 2017) and likeliness to default (Zeitun, 2009) but have mixed result on the firm's performance. The investors' confidence in the federal government, can also give an impact on the performance of the company with government holdings. In researcher knowledge, the only study looking at government holding and firm's performance in this past decade only involved China. Hence, this study attempts to fill the research gap by analyzing the impact of the general election on companies with government institutional holding in Malaysia. Besides, there is a gap in the literatures where most of the studies that looking at institutional ownership only focuses on the impact ownership concentration and ownership stability on firm performance. Very few studies examine the impact of institutional ownership type on firm performance.

1.3 Research Questions

The research questions for this study were:

1. Does 12th,13th and 14th Malaysia general election gives an impact on the stock price of company with institutional holding?
2. How does announcement of the general election outcome impact the stock return of company with institutional holding?

3. What factors explained the returns of company with institutional holdings during general election?

1.4 Research Objective

The research objectives of this study were:

1. To evaluate the impact of Malaysia general election on the stock price of company with institutional holding.
2. To determine whether the general election create value to the company with institutional holding.
3. To explore factors that affect firm stock performance following the general election result.

1.5 Significance of Research

Investors generally regard political risk as a significant influential factor in their portfolio management. The inefficiency of speculating the outcome of stock performance might result in the loss in capital invested. This is why the government and policy maker should dedicate more efforts towards improving the efficient stock market to avoid any catastrophic fall in the market.

This study will reveal the insight of the Malaysia stock market for investors not only local but also foreign investors. Investors usually rational and risk-averse which need more in-depth and reliable information to make deliberate and informed decisions to secure their capital when investing in a relatively risky stock market. The empirical work from this research will provide better insight into how political event affects Malaysia stock market. Investors can make a better decision in allocating assets portfolio during the event of the general election. The same as fund manager, if there is evidence that general election affects stock returns of certain companies, fund

manager should consider adding or disposing their fund allocation in certain companies whenever general election is going to happen. Investors can also use the information to invest or dispose their share during the event of general election. Stock analyst, on the other hand, can use the available information in forecasting data on their side and adjust the data accordingly whenever there is a general election coming.

1.6 Scope of Research

This study will cover the individual country of Malaysia during 12th, 13th and 14th general election. The proxy of company stock performance is the abnormal daily stock return during the election period. The election window period considered is 20 days before the announcement of election result until 60 days after the election result. The event day selected in this study only focus on the last three general elections namely 12th, 13th, and the 14th general election is 10 March 2008, 6 May 2013 and 14 May 2018 correspondingly. These event days selected is the first trading day when the market open after the announcement of election result. The sample use for this study is public listed companies with government ownership.

1.7 Conclusion

Briefly, chapter one elaborates the background, problem statement and objectives of this study. The vital theory as center of this research is the classical theory of Efficient Market Hypothesis that is going to be tested during 12th, 13th and 14th general election in Malaysia.

The organization of remaining chapter is divided into four sections: Chapter two describes the past literature review that related to political events and institutional ownership. Chapter three describes the data and methodology uses in this study besides hypotheses development. The next chapter, chapter four shows the results

from analysis done to test the hypothesis deducted in chapter three. Last chapter, chapter five conclude the findings in summary, conclusion and limitation of study, and extended it to the recommendation for future research.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter begins with a review of the theories related to market reaction and institutional investors. Since the research focus on the relationship between political event and stock market reaction, it is necessary to review the existing studies that related to market performance and political risk in every aspect.

Section 2.2 reviews the impact of institutional investors ownership on firm performance with the segregated discussion on different institutional ownership concentration, ownership stability and institutional investors' type.

The following section reviews the political risk impact on market performance. The most used methodology in measuring the effects of the political event on market performance is the event study. Political risks mostly have been identified as the occurrence of uncertainty in a political event such as general election and political turnover. The chapter ends with a brief finding of all works of literature that related to the institutional investors and political risk.

2.1 Review of the Theories and Empirical Works

At least two theoretical approaches have been adopted to identify the factors contributing to abnormal stock return from institutional investors during a political event. The theories identified are the Efficient Market Hypothesis (EMH) and Active and Passive Monitoring.

2.1.1 Efficient Market Hypothesis

The Efficient Market Hypothesis (EMH) introduced by Fama (1970) assume that financial market incorporated all publicly available information which then affect

the share price to reflect all relevant information. Correct information is vital to form a better expectation by investors. The more efficient the market, the more random sequence of price changes generated by the market which lead to the completely random and unpredictable price change in the stock market. In a competitive market, investors react quickly to the new information announced. EMH is divided into three categories, which are strong form, semi-strong form and weak form. The strong form market indicates that the current market price will reflect all relevant information which includes both public and private information. In the semi-strong form, the market will reflect only on the publicly available information while in the weak form, market prices only reflect the information related to historical data or return sequence (historical price). Fama also emphasises that the ideal market is a market where the prices provide accurate signals to investors which make it easier for investors to allocate assets in their portfolio.

Further studies on EMH in Malaysia are conducted by Akinyote (2008), Baharuddin, Abdullahi and Teoh (2010) and Wong and Hooy (2016). In their research on the relationship between the announcement of dividends and stock prices, they found that the stock market in Malaysia is considered the semi-strong efficient market. This show that stock prices in Malaysia reflect all publicly available information as well as historical past information. The only way an investor can gain abnormal return when ones possessed internal information (Akinyote, 2008). Wong and Hooy (2016) also demonstrate the same result when they explore the impact of the General Election on Banks with government ownership. In contrast, Yusoff, Salleh, Ahmad and Idris (2015) found a weak form of market efficient in Malaysia when they study the impact of a short run political event on the stock return of companies connected to the bi-power business-political elite.

2.1.2 Active Monitoring and Passive Monitoring

The function of institutional investors was described in the study by Shleifer and Vishny (1986) which highlight these investors' role in active monitoring and passive monitoring. The active monitoring by institutional investors will be likely to result in improved firm performance because institutional investors are considered as large and sophisticated investors that can give incentive and expertise to monitor the management. The passive monitoring, in the other hand, is based on the argument that institutional investors might be the short term investors who are acting like common traders (holding or selling stocks according to their portfolio) instead of monitoring the management and improving the corporate governance in the firm. Bruton, Filatotchev, Salim and Wright (2010) in their study based on this view found that the IPO's (Initial Public Offering) in UK and France performed better with concentrated ownership of private equity investors. However, the impact on performance is different depending on the type of private equity investors[2]. Elyasiani and Jia (2010), when looking at the stability of institutional ownership and firm performance found that stable institutional investors play an active role in monitoring the company. The pressure-insensitive[3] institutional investors give more impact on firm performance as compared to pressure-sensitive[4] investors. A view in a recent study on China by Lin and Fu (2017), an actively monitors institutional investors can minimise information asymmetry and agency problems thus enhancing firm performance. The institutional investors can make use of their highly developed professional skills , managerial skills and voting right to influence the manager to make better business decision besides improving firm performance and corporate governance. In case of financing, the

[2]. In this study, there are two types of investors which is formal investors who are Venture Capitalist and informal investors, Business Angels.
[3] Example of pressure insensitive institutional investors include public pension funds and mutual funds
[4] Example of pressure sensitive institutional investors include insurers, bank, and nonblank trusts owning at least one per cent of the firm's stock

institutional investors can provide funding or use their relationship with the related body to help the steady source financing whenever the firm need fund to expand.

2.2 Institutional Investors and Firm's Performance

In this past decade, few studies done in investigating the impact of institutional investors on firm performance. The result and effect are different depending on the concentration, ownership stability and type of institutional investors.

2.2.1 Institutional Ownership Concentration and Firm Performance

The studies on the impact of ownership concentration by top holding on firm performance were well documented in various part of markets (Bruton,Filatothev,Chanine & Wright, 2010 ; Heugens, Essen & Oosterhout , 2009 ; Omran, Bolbol & Fatheldin, 2008 ; Ongore, 2011 ; Schmidt & Fahlenbranch , 2017 ; Vintila & Gherhina , 2014 ; Zeitun , 2009). Most of the studies found that there was a positive relationship between top holdings concentration and firm performance except for Kenya (Ongore, 2011), Jordan (Zeitun,2009) Arab countries (Omran et al., 2008). The performance of Kenya Public Listed Companies shows a low firm performance when there is a high concentration of top five shareholders or high government ownership. Similarly, Zeitun (2009) demonstrate a negative correlation between ownership concentration and firm performance in 167 Jordanian listed companies. In addition, government ownership also leads to the negative performance of the firm. Government ownership reduces the probability of default but negatively affect the firm's performance. The regression analysis of 304 firms from Egypt, Jordan, Oman and Tunisia shows no significant effect between ownership concentration and firm performance. The study by Kang and Kim (2012) use the fixed-effect model on 6588 non-financial firm-year observations listed on the Shanghai

Stock Exchange, or Shenzhen Stock Exchange demonstrates that state-owned enterprise has better performance compared to government-owned firms.

Relevant studies conducted looking at institutional ownership does not only focus on government ownership. There are also studies that examined private institutional ownership on firm performance. Bruton et al. (2010) found that the concentrated ownership by private equity investors in the UK and France improves the performance of Initial Public Offering (IPO) companies. However, the impact would be different depending on the type of private equity investors. Heugens et al. (2009) in their study on Asia countries (India, Japan, Malaysia, South Korea, and Taiwan) found a significantly low correlation between concentrated ownership and firm performance. The analysis using HOMA[5], MARA[6] and WLS (Weighted Least Squares) regression on 660,087 firm-year observation shows that there is a certain threshold level of institutional ownership concentration necessary to affect firm performance positively. On the broader range of study, Chen, Ghoul, Guedhami and Wang (2017) has conducted a cross-sectional regression covering 64 countries. They found that there is robust and strong evidence that investment inefficiency increases when there is an increased in government ownership and thus, weaken the firm performance. Likewise, Fereira and Matos (2008), previously has done the same method of analysis on 27 countries and found that the firm's performance is better when there is a high number of foreign and independent institution compared to government holding. Vintila and Ghergina (2014) in their study on companies listed on the Bucharest Stock Exchange (BSE), found that only the second and third largest

[5] HOMA is a meta-analytical procedure introduced by Hedged and Olkin. In HOMA there are two methods for combining study estimates. The first method utilises a fixed effects model, which assumes the absence of heterogeneity between study results while the second method employs random effects models (Hedges & Olkin, 1985)

[6] MARA is a particular type of weighted least squares (WLS) regression analysis, which is explicitly designed to assess the relationship between effect size and moderator variables to model previously unexplored heterogeneity in the effect size distribution (Lipsey & Wilson, 2001)

shareholding are positively influenced the firm's value. However, the third largest shareholder only give positive influence at the threshold of 13.8percent ownership. At below holding of the limit, it will negatively influence the firm's value.

2.2.2 Institutional Ownership Stability and Firm Performance

Besides ownership concentration and risk volatility, the stability of institutional ownership also has been well documented for these past decades. Bushee's and Noe (2014) found that the temporary ownership in all firm rated by the Association for Investment Management and Research (AIMR) resulted in increased of the firm stock return volatility. Similarly, the companies listed in Russel 1000 and Russel 2000 indexes in the United States (US) shows negative firm performance whenever there is a change in ownership structure (Schmidt & Fahlenbrach, 2017). They also found that passive institutional ownership leads to lower agency cost by the firm. In the case of Taiwan, Hsu and Wang (2014) also found a positive impact between institutional holdings stability and firm performance using Ordinary Least Square (OLS) regression on 647 sample companies. Elyasiani and Jane (2008), when looking at bank holding companies (BHCs) in the US, also found evidence that stable institutional ownership will result in positive BHC's performance. Likewise, Elyasiani and Jia (2010), exhibit the same outcome for all firms in the US (except financial and public utility firm) using the simultaneous equation model.

2.2.3 Institutional Ownership Type and Firm Performance

Above all, looking at a comprehensive study on government ownership and firm performance, there is a mixed result recorded for this past decade. Interestingly, this direction of research has been done on the same market which is China. A recent study by Zhou (2017) shows a negative impact of government ownership on State

Owned Enterprise (SOE)'s return when there is a political event that happened. In contrast, other studies found a positive relationship between government ownership and firm performance in Chinese listed company (Yu, 2013; Tian & Saul, 2008). Both studies found that the link is U-shaped where up to a certain threshold, the corporate value decreases as shareholding by government increases, but, beyond the limit, the company value is increasing.

2.3 Political Risk and Stock Market Performance

Studies on political risk for over the past decade has been extensively done from different aspect worldwide. The political risk constantly has been referred to the event that is related to politic such as general election and also political turnover.

2.3.1 General election and Market Performance

General election, uncertainty and political risk always co-exist in most countries (Belo, Gala and Li, 2013; Chuang & Wang, 2010; Durnev,2010; Kim,Pantzalis &Park, 2012; Lehkonen & Heimonen, 2015; Li, Li & Xu, 2017; Liu, Shu & Wei, 2017; Jens, 2017; Menge, 2013; Shen, Bui & Lin, 2017; Winiewski, 2016; Yusoff, Salleh, Ahmad and Idris, 2015).

Because political news and the general election is considered as an event, there are few numbers of studies has been conducted using event study methodology when analysing the impact of the general election on market performance. Bialkowski, Gottschalk and Wisniewski (2008) in their study on national polls in 27 industrialised nations, found that there are significant abnormal return increases on the election day and continue for another few days after. The market only settled down[7] around 15

[7] in this study referring to the situation when there is an increase in cumulative Abnormal Volatility (CAV). The computation of CAV is the same as standard event study methodology except for the variable of interest will be the variance of the abnormal return as a proxy of volatility (Bialkowski et al., 2008)

trading days after the event. Similarly, Ramesh (2015) found the same evidence in India from May 2013 to June 2014 where there are a significantly high positive cumulative average abnormal returns (CAAR) for 30 companies listed in S&P Bombay Stock Exchange Sensitive Index (BSE SENSEX). In the case of the government-owned bank in Malaysia, Thailand and Indonesia, Wong and Hooy (2016) show that the CAAR for government-owned banks is positively high significant compared to private owned bank during the election period. Opare (2008) found that the cumulative abnormal return (CAR)[8] of MSCI Europe Index is positive during 15 days before the election and become negative following 15 days after the event. Moreover, the decline in the market is sharper than the rises of the period before the election and lasting more than 15 days. A recent study on the 2016 US election by Shaikh (2017) demonstrates an abnormal gain in FTSE100, Dow Jones Index, EuroStock50 and Nikkei 225 during the Republican party election.

On the other hand, some studies found negative abnormal return using the same method. Yusoff, Salleh, Ahmad and Idris (2015), in their research on publicly listed company connected with the politician in Sarawak, Malaysia, found that the market reacts negatively upon the announcement of the political event[9]. The positive reaction recorded when there is a new election coming up. Likewise, Menge (2013) found that the stock return of Nairobi Security Exchange declined when there is an increasing political uncertainty during the election period. Chuang and Wang (2010) also recorded the same result when a study is conducted on major democratic countries (United State, Japan, the United Kingdom and France). They found that there is a negative abnormal return before the date of the general election announcement result,

[8] The literature on CAR is also reviewed in this study since the primary purpose is to see whether there is abnormal return exists in the event of political risk or political change. CAR is the measure of cumulative abnormal return for one subject (for instance, index or one company) while for a larger sample, to capture all the abnormal return, CAAR is used when the cumulative abnormal return measured must consider all subject in the sample that resulted in an average abnormal return.
[9] Political events besides general election

6 and three days before announcement and 4, 6 and ten days after the announcement. Other studies found the inconsistent result when analysing the impact in Kenya (Kabiru, Ochieng & Kinyua, 2018) and the United States (Oehler, Walker & Wendt, 2013). Both studies reported that the market reacts differently to the environment. However, in the US, the changes in the presidency from Republican to Democratic or vice versa, causes a stronger market reaction to compare with the re-election of the incumbent.

2.3.2 Political Turnover and Market Performance

In terms of presidency change, most studies found significant effect on market performance (See for example Abidin, Old & Martin, 2010; Belo et. al, 2013; Chuang & Wang, 2009; Fuss & Bechtel, 2008; Goodell & Vahama, 2013; Jens, 2017; Oehler et.al, 2013; Savita, 2015; Shaikh, 2017; Wang, Lee & Lin, 2015; Wang & Lin, 2009; Wisniewski, 2016; Wong & McAleer, 2008). The result mostly depends on the winning party whether it is favors by the investors or otherwise. Wong and Mc Aleer (2008) in their analysis on Standard & Poor's 500 Composite Index found that stock price falls during the early stage of the presidential cycle. However, the stock price rises and reach the peak during the third or fourth year of a ruling by the Republican incumbent. Belo et al. (2013) found that the stock return of industrial firms in the US is higher during Democratic presidencies. Similarly, New Zealand also shows a different impact on NZX50 stock return with a different cycle of the ruling (either National party or Labour party) (Abidin et al., 2010). Jens (2017) reported that the firm in the US, reduced their investment by 5 percent to 15 percent owing to political uncertainty during the latest 8 Gubernatorial elections. There is also evidence that shows post-election rebound by these firms depending on whether the incumbent party is reelected.

Wang and Lin (2009) in their study on Stock Exchange Value Weighted Index (TAIEX) return during different incumbent in Taiwan, found that stock return is negative during the election between congressional and democratic parties, but the stock returns volatility exists only during democratic elected. Moreover, the impact on the stock return is significantly higher when congressional take over the ruling after democratisation[10]. Chuang and Wang (2009) when looking at the significant democratic countries (United States, Japan, United Kingdom and France), reported that when there is a change in incumbent party, it will create great political party distress and resulted in falling of stock return. Wisniewski (2016) in his survey noted that when Democratic presidents were elected in the US, investors will start to discount their future cash flow which resulted in a drop of stock price. Shen et al. (2017) reported that firms benefitted from incumbent government policy would experience positive stock return. In the case of Malaysia, a recent study by Liew and Rowland (2016) said that there is a significant positive effect before the election, and after election on FBMKLCI for latest two general polls due to close fight between two major political parties[11] in 2008 and 2013. Malaysia has been ruling by the same party, Barisan Nasional (BN) for the past 55 years.

Investment by the firm during election period mainly depend on the firm's expectation on the outcome. In China, the effect of political turnover is stronger in state-owned enterprises, capital intensive firms and firms that are locally important (Chen, Luo & Zhang, 2015; Sun, Tang & Wu, 2011). These firms will reduce their investment when there are political changes. During event day, state-owned

[10] Taiwan, is previously ruled by Kuomintang (KMT) for 55 years, until democratic reforms in 1986, which led to the first-ever direct presidential election in 1996. The Democratic Progressive Party (DPP) won the presidential election in 2000 which end the congressional ruling. However, Taiwan has once again witnessed the transfer of power when congressional KMT won the presidential election in 2008 (Kan, 2010)

[11] During this time, the government party was Barisan Nasional (BN) while the opposition party is Pakatan Rakyat (PR)

enterprise's stock performance earns more returns compared to a private firm (Zhou, 2017). Similarly, African companies show that there is a reduction in investment whenever there is a political event occur (Asongu, 2012). Durnev (2010), in his observation on 47,808 firms from 79 countries found that investment by corporate is 40 percent less sensitive to stock price during the year of election compared to a non-election year. Mazol (2013) conducts a study on 52 developed countries using EGARCH model. The result shows that average stock return decreases in developed countries but increasing in developing countries during the pre-election period. However, developing countries do not show any changes in their stock return after the election period whereas developed countries stock return become lower in that period. The impact of the different party elected during the election also shows in a small firm (Fuss & Bechtel, 2008). In Germany, the small firm's return is negatively linked to the probability of the left-leaning coalition winning. Liew and Rowland (2016), in their study using regression analysis, found that the stock return increased by 62.52 percent soon after the announcement of the election result. The index also recorded the highest gain with 96.29 percent in the middle of intraday. In a comprehensive study by Li et al. (2017) covering the firms from countries listed in Worldscope, they found that the firm's stock is more likely to crash during the post-election period compared to before the election. Lehkonen and Heimonen (2015) also reported the parabolic relationship[12] between stock return and democracy. In terms of volatility, Goodell and Vahama (2013) found that the VIX volatility index[13] of monthly IOWA Electronic market[14] increases along with the positive changes on the success probability of

[12] Parabolic to refer to the positive relationship between variables until it reaches a certain threshold; the result becomes inverse. In this study, there is a threshold level of democracy after which political risk begins to decline.

[13] VIX is index volatility that is measured and introduced by CBOE Global Market as a benchmark index to estimate the market's expectation of future volatility. It is based on the option of the S&P Index (CBOE, 2019)

[14], The Iowa Electronic Markets is a futures market run for research and teaching purposes. Traders can buy and sell real-money contracts based on their belief about the outcome of an election or other events.

eventual winner. Also, America and Europe show there are at higher risks in terms of volatility in stock and foreign exchange market compare to another region (Vortelinos & Saha, 2016). However, political risk recorded having more significant influence in other areas compared to Europe. In the case of Malaysia, the stock volatility is higher during the pre-general election period (Jiun, 2018). Moreover, Jiun found that the volatility of Shariah-compliant indices and stock index with higher market capitalisation is lower during the post-election period.

Political uncertainty seems to generate an unstable financial market and more pronounced stock market cycles (Mnif, 2017). The presidential political orientation, election cycle, approval rating and military conflict also significantly give impact on the stock market (Winiewski, 2009). In terms of stock return, the effect can be seen in IOWA[15] (Majumder, Diermeiera, Rietzc & Amaral, 2008), United States (Kim, Pantzalis & Park, 2012), and in other 50 countries (Lehkonen & Heimonen, 2015).

2.4 Conclusion

From all the literature reviewed, we can sum up that the stock return was affected by the various economic variable with different direction whether positive, negative, or no effect. In these studies, institutional ownership concentration, ownership stability and institutional investors' type besides political event.

Even though a vast amount of studies is done on the impact of stock market performance during the political event and general election, most studies have been focusing on the developed countries and major democratic countries such as United States, Japan, United Kingdom and France. Most countries has a poll to predict the real election outcome which is beneficial to investors during the election period. In

Using this "wisdom of crowds," the price of a deal at any given time is a forecast of the outcome (IEM,2019)

[15] IOWA here referring to IOWA electronic market with the electronic presidential election. For the definition of IOWA electronic market, refer to footnote (12)

terms of methodology, an event study is widely used when capturing the impact of the political event.

Institutional investors, on the other hand also recorded great impact on stock market performance. The result would be different depending on the ownership concentration, ownership stability and institutional type. For this past decade, only two studies investigate the relationship between government ownership and firm performance on the individual country which in Jordan and China. The same situation can be seen when looking at the impact of both variables on stock market performance (government institutional investors and political event), especially in Asia. The country that has been highlighted was China and Taiwan. Most literature that includes ASEAN countries only investigate the relationship of the political event on stock market performance. The most related study was done in 2016 to analyse the impact of the general election on the government-owned bank in three countries namely Malaysia, Thailand and Indonesia. To this date, none in the author's knowledge has been investigating the impact of the general election on the firm with government institutional holding in a single country.

The next chapter develops the underlying framework of the thesis to address the research questions set out in Chapter One.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This paper examines the political impact on Malaysia capital market. The primary objective is to find out if the stock prices of the company with institutional holdings in Bursa Malaysia[16] have abnormal return during 12th, 13th, and 14th Malaysia General Election. This research employs daily adjusted prices of individual companies. The 42 companies' daily stock return was used as a proxy of expected market return of Malaysia. Section 3.2 explained the sample selection used for this study followed by theoretical framework in section 3.3. The methodology and hypothesis development are briefly explained in section 3.4. The sample period being examined is from 15 February 2007 until 8 August 2018. Three elections happened during this period in Malaysia. The dates of election during the examined period are shown in Table 3.1 below.

Table 3.2
Election dates for Malaysia between 8 March 2007 to 08 August 2018

	Election date
12th general election	8 March 2008
13th general election	5 May 2013
14th general election	9 May 2018

Source: own compilation based on information from Election Commission of Malaysia

As for methodology, the event study methodology proposed by Fama, Fisher, Jensen and Roll (1969) is applied in conducting this study. The method will closely follow the modification made by Kabiru et al. (2018), Savita (2015), Wang et al.

[16] Bursa Malaysia is the stock exchange in Malaysia

(2015) and Wong and Hooy (2016). The data was obtained from Datastream to calculate the daily stock return while for econometric analysis, the Microsoft Excel tools and Stata software is used.

3.1 Sample Selection

This research deals entirely with secondary data. The information of companies with GLICs holding is collected from the annual report of 7 Malaysia GLICs[17]. The information of Malaysian GLICs is available on the Ministry of Finance Malaysia website[18]. The list of the company with each GLICs holdings is available in the Appendix A. Out of 440 companies found, only 63 is Malaysia public listed company[19]. The final 42 companies were selected for this study when another 21 is rejected due to the criteria below:

1. There is no daily stock data available during 12th,13th or 14th Malaysia general election within the study period
2. There is no institutional holding information available during 12th, 13th or 14th Malaysia general election during the study period.

The criteria mentioned above in the finalized sample size is summarized in Table 3.2 below.

[17] Namely Minister of Finance (Incorporated), Khazanah Nasional Berhad, Employee Provident Fund (EPF), Lembaga Tabung Haji (LTH), Armed Forces Fund Board (LTAT), Retirement Fund (Incorporated) and Permodalan Nasional Berhad

[18] Official portal of Ministry of Finance Malaysia, http://www.treasury.gov.my/index.php/en/contactus/faqs/gic.html

[19] See Appendix B

Table 3.3

Sample Selection Process for firms with government institutional ownership

Company		**Total**
All public listed company in Bursa Malaysia[20]		933
All company with government institutional holdings (from 7 GLICs 2018 annual report)		440
Less:		
Private company	377	
Unavailability of stock data during 12th, 13th, and 14th GE	18	
Unavailability of ownership data during 12th, 13th, and 14th general elections	3	
Total Final Firms		42

As for the market return, FBMKLCI[21] daily data is used following the method used by Liew and Rowland (2016) and Wong and Hooy (2016).

3.2 Theoretical Framework

There are two main objectives of this study. The first objective is to examine market reaction following general election result announcement. This objective is met by measuring the cumulative average abnormal return (CAAR) in the short event windows. Two announcement dates during 6 (0, +5) and 11 (0, +10) event windows are selected as the dependent variable because the return has shown signs in the previous study (Wong & Hooy, 2016). The CAAR (0, +5) and (0, +10) will then be used in the regression model to test the effects of the independent variable in the second objective. Objective two has four independent variables which are, Ownership (IO), Size (SIZE), leverage (LEVERAGE) and profitability (ROA). These variables

[20] The information available from Bursa Malaysia at March 2019.

[21] FBMKLCI also known as FTSE Bursa Malaysia KLCI that comprises 30 largest companies in the main board (Bursa Malaysia, 2019)

will be regressed by using ordinary least square (OLS). The relationship is summarized in Figure 3.1 below.

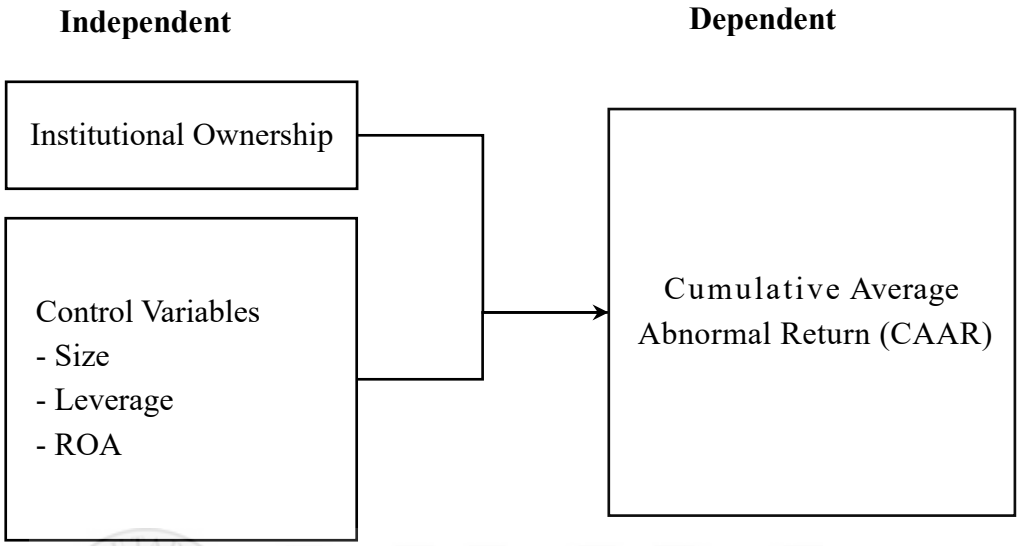


Figure 3.2
Relationship between Independent Variables and Dependent Variables

3.3 Methodology and Hypothesis Development

There were few methodologies found that could be used in testing the hypothesis for this study. The main method used to find short run abnormal return effect is event study methodology. As for measuring the relationship between control variables and cumulative average abnormal return, standard regression using OLS analysis is conducted to run the analysis.

The computation of the hypothesis for this study is based on the theories found in Chapter Two. There were two theories related to general election and institutional ownership. The first theory is based on the Efficient Market Hypothesis (EMH). The following section formulates the hypothesis based on Active and Passive Monitoring theory.

3.3.1 Short Run Abnormal Return Effect

The event study methodology proposed by Fama et al. (1969) has been used broadly in finance research to measure investors' reaction towards various scope of events like right announcements, new issuance of equity, merger and acquisition and also political news such as an election. There have been several discussion and improvement made on event- study methodology to improve and improvise it. Some notable literature is by Brown and Warner (1985), Henderson (1990) and Thompson (1985). The event study is based on the assumption of efficient market information where the stock prices should immediately reflect all the publicly available information. As an approach, it is considered a reputable method to measure the impact of the specific event on stock return.

This study employs the market model (MM) and market adjusted return (MAR) where the expected return of stock *i* at event day *t* is presumed to be equal to the market return. These models have been proven to yield a valid result (Wong & Hooy, 2016). The simulation by Brown and Warner (1985) when using daily return as compared to monthly return introduced by Fama et al. (1969) demonstrate that all the three elements of market models, mean-adjusted and market adjusted are regularly used because they have equal capability to identify abnormal stock performance. The MM uses estimation period to deduct the expected return during event windows day while MAR uses market return to find the difference between market return and stock return as abnormal return during event window period. The MM has been widely used since it uses historical information to find the stock expected return on present day. The MAR could be useful as robustness check since it considers the current market reaction in order to recognize any abnormal return of a stock.

The window study period will be 20 pre-event days, event day and 60 post-event day following study by Wong and Hooy (2016) because they found that the market in Malaysia is inefficient. In their view, in an inefficient market, stock prices tend to overreact or under-react. Under this situation, the market will take longer time to react to the news[22]. Thus, in this study, the 81- day event window is used. Trading days prior to the announcement of general election result are numbered -1, -2, -3 and so on; event day is the first trading day when the market is open after the announcement, is numbered event day 0 (t_0); and event days following the result announcement are numbered +1, +2, +3 and so on. Following study by Brown and Warner (1985) and references from Kimberly and Phyllis (2014), the estimation window in this study will use the maximum value of 250 days which is a one-year trading day before the event. -270 to -20 estimation window was set as an earlier observation to estimate the intercept, α and slope, β for each company stock prices. The illustration of this study window is shown in Figure 3.2 below.

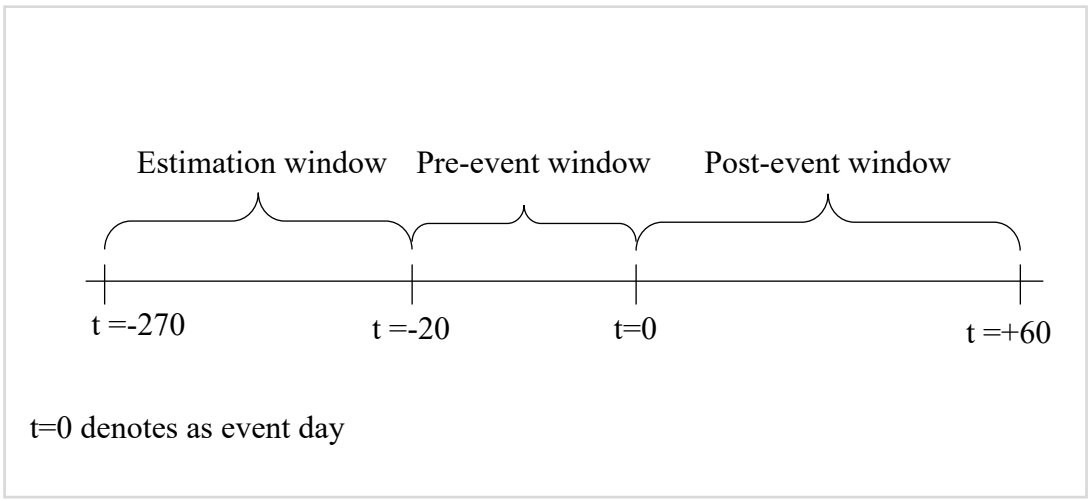


Figure 3.3
Illustration of the study period used in this study

[22] This statement has been viewed by Wong and Hooy (2016) from literature by Bond & Thaler (1985)

Based on the information on election date available from Election Commission of Malaysia (refer Table 3.1), the study period for each general election is shown in Figure 3.3 ,3.4 and 3.5 below.

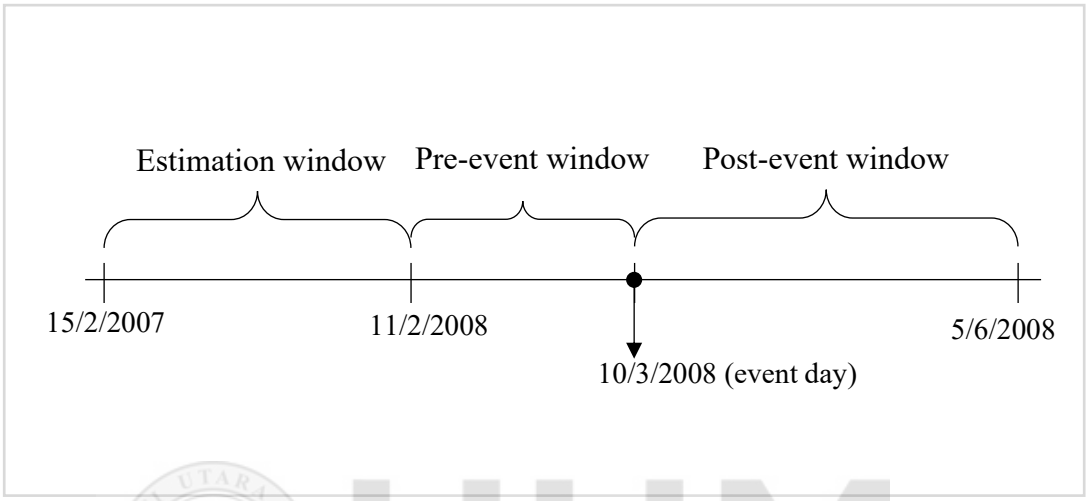


Figure 3.4
Study period during 12th general election

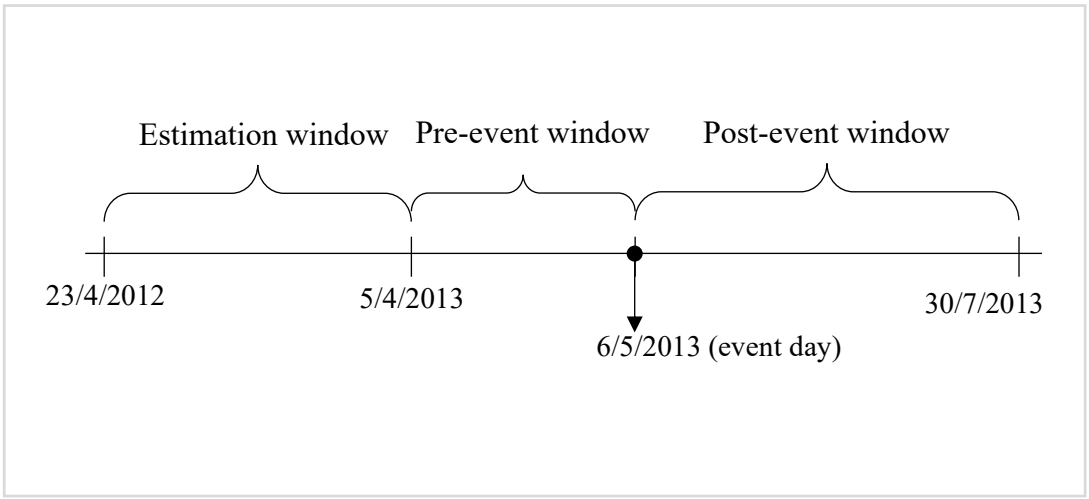


Figure 3.5
Study period during 13th general election

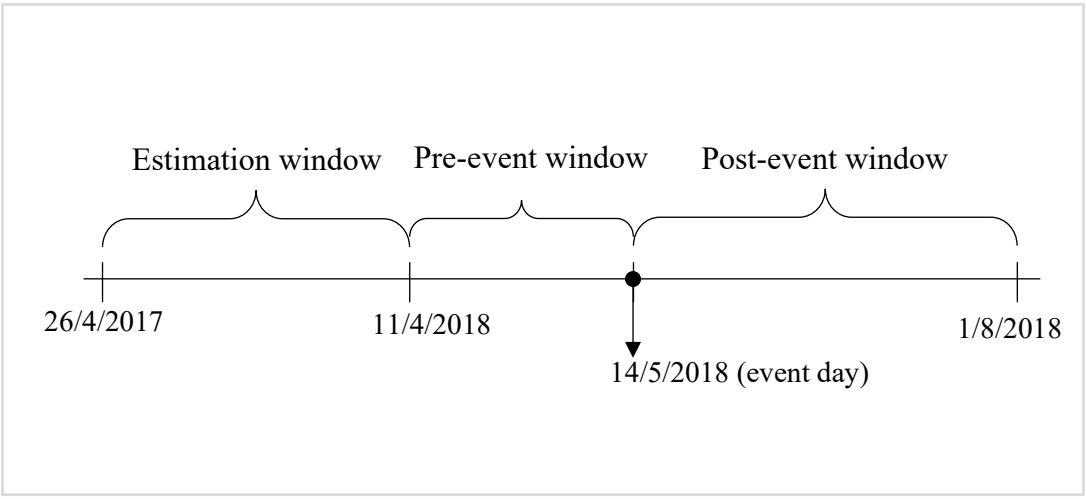


Figure 3.6
Study period during 14th general election

To test the hypothesis H_0', the market model from event study methodology is used to estimate the average abnormal return (AAR) and cumulative average abnormal return (CAAR). The abnormal return of the share price will be the indicator of the effect of the event (announcement of general election result). The abnormal return is measured by calculating the differences between the actual stock return and the stock's expected return during the period without event. The equation model to estimate the abnormal return is illustrated in equation (3.1) below:

$$r_{it} = \alpha_i + \beta_i r_{mt} + e_{it} \quad (3.1)$$

Where,

r_{it} = $\ln\left(\frac{P_{i,t}}{P_{i,t-1}}\right)$ = The change of stock i's price (P_i) on day t

α_i = Average rate of stock return by firm i realized in period t with zero market return (intercept)

β_i = The sensitivity of stock i to the market return (slope)

r_{mt} = $\ln\left(\frac{K_t}{K_{t-1}}\right)$ = The change of market index (K) on day t (the market return on day t)

e_{it} = The part of stock's return resulting from firm-specific events.

Once the model is estimated, the parameter α_i and β_i is using to generate expected return of a firm during event day. The value of α_i and β_i in this study is measured during estimation period of -255 until -5 for each event of general election. The model is expressed in equation (3.2) below:

$$E(r_{it}) = \alpha_i + \beta_i r_{mt} \quad (3.2)$$

Where $E(r_{it})$ is the expected return of firm i during event day. Once $E(r_{it})$ is obtained, it will be compared to the actual return of the firm i during the event day. The difference between expected return $E(r_{it})$ and actual return r_{it} is known as abnormal return. The residual, ARit represents the measure of abnormal performance of a stock i. The model to express this abnormal return is shown in equation (3) below:

$$AR_{it} = r_{it} - E(r_{it}) \quad (3.3)$$

Where AR_{it} is the abnormal return of firm i at time t. If a stock is not traded on a certain event day, the abnormal return on that particular day is equal to zero. The illustration of this condition is shown below:

$$r_{i,s} = \frac{Ln(\frac{P_{i,a}}{P_{i,a-1}})}{t_{i,s}}$$

$where$,

$r_{i,s}$ = Average daily returns of stock i during the non-trading period

$P_{i,a-1}$ = Stock i's adjusted price in the last trading day before the non-trading period

$P_{i,a}$ = Stock i's adjusted price the first trading day after the non-trading period

$t_{i,s}$ = The number of days during the non-trading period of stock i plus the first trading day after the non-trading period

To draw the overall inference for the event, the AR need to be aggregate (MacKinlay, 1997). The aggregate process is deducted into two stages. First, aggregation across firms which resulted in average abnormal return (AAR). The second stage is the aggregation of the AAR across time which results in cumulative average abnormal return (CAAR). The computation of AAR and CAAR is illustrated in equation (4) and (5) below:

$$AAR_t = \left(\frac{1}{n}\right) e_{it} \quad (3.4)$$

Where,

n = Number of firms in the sample

AAR_t = Average abnormal return at time t

$$CAAR = \sum_{t=1}^{T} AAR_t \quad (3.5)$$

Where CAAR is the cumulative average abnormal return and T is some number of event days before day t. At this point, the information gained will be enough to determine whether the general election has an impact on the stock return of companies with government institutional holding. The null hypothesis to be tested is:

$$H_0' \ : E(CAAR) = 0 \quad (3.6)$$

In other words, the general election has no impact on the stock return of the company with government institutional ownership. However, the statistically significant of AAR and CAAR need to be tested. The significant test can be prepared by computing the t-statistics. The simple t-statistic for AAR is the ratio of AAR_t to its estimated standard deviation, σ (AAR_t). In this study, the estimated standard deviation is measured over the day -255 to -5 representing 250 days estimation window. The t-statistic for AAR is as follows:

$$t(AAR_t) = \frac{AAR_t}{\sigma(AAR_t)} \quad (3.7)$$

For CAAR, the estimation of standard deviation will follow Wong and Hooy (2016) where the computation of CAAR t-statistic is as below:

$$t(CAAR) = \frac{CAAR\ (t_1,t_2)}{\sigma(t_1,t_2)} \quad (3.8)$$

Where $\sigma^2(t_1, t_2) = \ l\,\sigma(AAR_t)$

l is the horizon length of the event period.

To make the analysis robust, Market Adjusted Return (MAR) is also utilized in this event study. It starts by computing the daily abnormal returns (AR) as follows:

$$AR_{i,t} = \ r_{i,t} - r_{m,t} \tag{3.9}$$

$Where,$

$AR_{i,t}$ = Abnormal returns for stock i on day t

$r_{i,t}$ = $\ln\left(\frac{P_{i,t}}{P_{i,t-1}}\right)$ = The change of stock i's price (P_i) on day t

r_{mt} = $\ln\left(\frac{K_t}{K_{t-1}}\right)$ = The change of market index (K) on day t (the market return on day t)

The second step is to compute the daily cross-sectional average abnormal return (AAR) for day, t as below:

$$AAR_t = \frac{\sum_{i=1}^{n} AR_{i,t}}{n_t} \tag{3.10}$$

n_t = The number of observations on event day t

The final step is to calculate the sum of cross-sectional average abnormal returns to compute cumulative average abnormal return (CAAR) for event day t as below:

$$CAAR_t = \sum_{k=t-T}^{t} AAR_t \quad (3.11)$$

T = Some number of event days prior to day t

To test the null hypothesis (average abnormal returns on event day t is equal to zero), the t-statistic is calculated to see whether there is the significant change in stock prices due to the announcement of the general election result. The t-statistic for AAR is as follow:

$$t(AAR_t) = \frac{AAR_t}{S_t * \sqrt{n_t}} \quad (3.12)$$

Where

$$s_t = \sqrt{\frac{\sum_{i=1}^{n}(AR_{i,t} - AAR_t)^2}{n_t - 1}} \quad (3.13)$$

and i = 1,2,3, …, n_t

The null hypothesis that the CAAR over T days is equal to zero is tested using a t-statistic as below:

$$t(CAAR) = \frac{(CAAR_t/\mathrm{T})}{S_t/\sqrt{T}} \quad (3.14)$$

Where

$$s_t = \sqrt{\frac{\sum_{t=1}^{T}[AAR_T - (CAAR_T/T)]^2}{T-1}} \quad (3.15)$$

and t = 1,2,3, …, T

$CAAR_T$ is the Cumulative average abnormal returns over the T- day interval.

3.1.1 Regression analysis

Besides event study, another analysis used as a robustness check is regression analysis. The dependent variable used in regression is CAAR which obtained from the previous analysis. Even though most studies use ROI (Return on Investment) and leverage as the dependent variable, it is appropriate to use CAAR as the dependent variable in this study because the objective is to see the response of company with government institutional holding during the election in terms of stock return (Wong & Hooy, 2016). The dependent variables following Wong and Hooy (2016) will be CAR (0,5) and CAR (0,10). This research controls the effect of firm characteristics such as the percentage of institutional holding, firm size, leverage, and firm performance. The proxy for institutional holding is Institutional ownership (IO), Size is Total Assets (SIZE), Leverage is total liabilities over total assets (LEVERAGE), and performance is Return on Assets (ROA). The model for this control variable is shown as follows:

$$CAR = c + \beta_1 IO + \beta_2 SIZE + \beta_3 LEVERAGE + \beta_4 ROA \quad (3.16)$$

Where,

c = Constant

IO	=	Percentage of the total number of outstanding shares held by the top 10 institutional investors
$SIZE$	=	The logarithm of the log value of total assets
$LEVERAGE$	=	The ratio of the book value of total liabilities to the book value of total assets.
ROA	=	Profit divided by book value of assets

All the measurement and control variable used is following literature by Lin and Fu (2017) except for IO (Institutional Ownership), the computation of IO is based on the studies by Chen et. al (2013), Ferreira and Matos (2008) and Kang and Kim (2012) where the total percentage of institutional ownership consists of top 10 institutional investors in the firm. All variables were measured at the end of the respective election quarter following a study by Barinov (2017) and Schmidt and Fahlenbranch (2017).

3.3.2 Determinant of Variables

The dependent variable for this study is the cumulative abnormal return. One group of independent variables and four control variables are identified for the purpose of empirically testing the hypothesis. The group of independent variables consists of 42 companies which all have government holding in their shares. All companies are listed in Bursa Malaysia during the 12th, 13th and 14th Malaysia general election. The company characteristic in relation to size, profitability, gearing, and percentage of institutional holdings are included as control variables in this study. All variables in this study are secondary data extracted from DataStream. The sample period is from 8 March 2007 until 8 August 2018. A final sample of 42 companies listed on Bursa Malaysia is selected for the empirical test of all hypothesis.

3.3.3 Hypothesis Development

a) Abnormal Return During General Election

Based on studies by Akinyote (2008) and Baharuddin et. Al (2010) , the Malaysia stock market is a semi-strong efficient market. All stock prices in Bursa Malaysia reflected on all publicly available information. As such, logic will dictate it is impossible for investors to gain benefit from the abnormal return. Given the situation where the announcement of the general election result is publicly announced, the stock market in Malaysia will reflect right away on the announcement. Wong and Hooy (2016) study support this argument when they found that the government-owned bank in Malaysia appears to have a significant positive stock return after the announcement of the election result. The market value of government-owned banks also influenced by the election result in the short run. However, in terms of abnormal return, government-owned banks exhibit high and significant Cumulative Average Abnormal Return (CAAR) during their study period compare to privately owned banks.

This finding leads to the hypothesis as below:

H_1 : There is a significant abnormal return of government-owned company during 12th,13th and 14th general election.

b) Government Institutional Ownership and Abnormal Return

The concept of active monitoring and passive monitoring by Shleifer and Vishny (1986) when explaining the role of institutional investors is used to deduct the next hypothesis for this study. Active monitoring will positively influence firm performance because actively monitors institutional investors can minimize agency

problems and information asymmetry besides enhance firm performance (Lin & Fu, 2017). They also believed that the institutional investors could make use of their highly professional skills ,managerial skills and voting right to influence the manager to make better business decision besides improving firm performance and corporate governance. In case of financing, the institutional investors can provide funding or use their relationship with a related body to help the firm source financing whenever the firm need fund to expand. Besides, among other reasons, institutional investors can enhance shareholder's value by attracting more analyst while reducing insider ownership.

On the other hand, passive monitoring is based on the argument that institutional investors might be the short term investors who are acting like common traders[23] instead of monitoring the management and improving the corporate governance in the firm (Shleifer & Vishny, 1986). If there is passive monitoring exists in a firm, it is expected that there will be weak or no relationship between firm performance and institutional ownership. However, most studies found a positive relationship which indicates that the institutional investors posit active monitoring in the firm (Bruton et al. , 2010: Elyasiani & Jia, 2010: Lin & Fu, 2017). In the case of Malaysia, Wong and Hooy (2016) found that Government-owned bank in Malaysia shows a highly significant positive reaction in stock return during the election period.

This finding leads to the hypothesis as below:

H_2 : There is a significant relationship between abnormal stock return and institutional investors ownership.

[23] holding or selling stocks according to their portfolio just to generate profit for trading.

c) Firm's Size and Abnormal Return

Wong and Hooy (2016) found that there is a negative relationship between stock returns and firm size in Malaysia and Indonesia during the 2000- 2013 general elections. They conclude that the larger the size of the firm will result in the lower abnormal return. The same result was observed by Belghitar et al. (2011) when looking at the US firms listed in New York Stock Exchange (NYSE), American Stock Exchange (AMEX) and Nasdaq. Similarly, large firms in China with institutional ownership also exhibit worse market performance compared to other firms (Lin & Fu, 2017). Aloui and Jarboui (2017) emphasize that the negative relationship between a firm's size and stock return is caused by deterioration in the monitoring ability during a crisis which reduced investor's confidence in firms. This cause also incorporated with poor corporate governance in the firm. Besides, there is also evidence that in the emerging market, the momentum effects such as stocks returns are primarily driven by small stocks (Cakici et al., 2013). Furthermore, Fu (2009) in his study highlighted Merton's prediction on "size effect" where idiosyncratic risk and investor's behavior controls the impact of a firm's size.

These findings lead to the hypothesis as below:

H_{3a} : There is a significant relationship between abnormal stock return and the Firm's size

d) Firm's Leverage and Abnormal Return

Leverage was used continuously as an independent variable whenever there is study involved with firm performance. It was known that leverage is measured as a risk for a firm. Most studies found that leverage is negatively impacting firm performance (Elyasiani,2008; Lin & Fu, 2017; Liu et al., 2017; Wong & Hooy, 2016).

However, some studies found a positive relationship between leverage and firm performance under a few circumstances. Belghitar et al. (2011) found that firms with low growth opportunity have a positive leverage effect on firm performance while Yuan & Xiao (2008) study also demonstrate the same result on small firms. A more substantial period of study on a single country which is the US by Oehler et al. (2013) also found that the higher leverage by a firm with institutional ownership during general election exhibit better firm performance.

On the other hand, Chen et al. (2013) when looking at different type of institutional ownership, found that firms with high foreign institution ownership resulted in positive firm performance when considering leverage as a control variable. The adverse effect of leverage on stock returns is well explained by Cai and Zhang (2011) when looking at the debt overhang theory by Myers. The theory suggests that the higher leverage increases the probability of a firm obtaining a positive NPV project in the future. The payoff, however, is expected to be shared with shareholders only after fulfilling the debt obligation. This is the situation said to be under-investment situation which reduces the growth opportunity of the firm and thus, increasing the debt will result in lower stock price. Modigliani and Miller (1958) as a pioneer in this study stated that the financial leverage is considered as equity risk which directly affects stocks return and indirectly affect business risk in influencing the investment decision. Thus, this finding leads to the hypothesis as below:

H_{3b} : There is a significant relationship between abnormal stock return and Firm's leverage

e) Firm's Profitability and Abnormal Return

Wong and Hooy (2016) in their review emphasis that a government-owned firm usually has better stock returns on average. This is due to the capital controls

implemented by the government. Further, using the fixed effect model regression with ROA as a control variable, they found that more profitable firms have a higher stock return. However, in terms of the different political cycle, Belo et al. (2013) found that firms with high government exposure have high future profitability and stock returns during Democratic presidential terms, while the opposite holds during Republican presidential terms in the US. In the case of semi-strong form market efficiency, it is expected that there will be adverse effects on the firm's profit which should be incorporated in today stock's price (Fuss & Bechtel, 2008). Past studies also highlighted that investors should be cautious during pre-general election periods in Malaysia as their profits are underlie in high volatility and compensation for abnormal returns is small during this time (Chian & Jiun, 2018). Based on this, it can be concluded that the last hypothesis is as below:

H_{3c} : There is a significant relationship between abnormal stock return and the Firm's profitability

3.4 Summary

In this chapter, the population chooses as the target population is public companies with government institutional holdings in Bursa Malaysia. Out of 440 companies, 42 final companies have been used in this study. Market Model form event study methodology was chosen as a method of analysis. All the data used is secondary data collected from DataStream. The frequency for stock return in event study is daily stock return while for control variable regression analysis, the frequency used is quarterly data. The window period of the event is 81 days with an estimation period of 250days. The study is performed to find out if the stock returns of the 42 companies exhibit abnormal return during 12th, 13th, and 14th Malaysia general election.

CHAPTER FOUR

DATA ANALYSIS

4.0 Introduction

This chapter discusses the findings after computing the analysis of the relationship between a firm's with institutional ownership and abnormal return. The first section of the chapter illustrates preliminary results from the descriptive statistics of each independent and control variables. The next section explains the presence of abnormal return of firm's with institutional holdings during the general election to test the hypothesis one, H_1 (There is a significant abnormal return of government-owned company during 12th,13th and 14th general election). The third section analyzes the data whether the distribution is normal and also examines whether there is multicollinearity, autocorrelation and heteroscedasticity problem exist before analyzing the regression model. The last section interprets the findings of regression analysis whether the result is consistent with other hypotheses developed in chapter three which is as below:

H_2 : There is a significant relationship between abnormal stock return and institutional investors ownership.

H_{3a} : There is a significant relationship between abnormal stock return and the Firm's size

H_{3b} : There is a significant relationship between abnormal stock return and Firm's leverage

H_{3b} : There is a significant relationship between abnormal stock return and Firm's profitability

4.1 Descriptive Analysis

Descriptive analysis is vital to understand the fundamental characteristic of the data. Table 4.1 below shows the descriptive statistics of all variables in terms of mean, median, maximum value, minimum value and standard deviation for the entire sample from 2008 until 2018. The sample consists of 42 public listed companies with government institutional holdings.

Table 4.4

The result of Descriptive Statistics for Each Variable of 42 Public Firms with Government Institutional Holdings in 2008-2018

Variables	Non-Bank (36)				Bank[24](6)			
	Mean	**Max**	**Min**	**Std. Dev**	**Mean**	**Max**	**Min**	**Std. Dev**
Institutional Ownership (%)	0.571	0.973	0.000	0.325	0.582	0.907	0.007	0.312
Total Assets (RM Million)	6.452	144.209	0.150	20.210	209.240	764.442	27.476	197.008
Debt-Assets	0.213	0.584	0.050	0.162	0.109	0.175	0.022	0.045
ROA	0.056	0.455	-0.415	0.095	0.010	0.014	0.006	0.002

As reported above, the average institutional ownership is about 57 percent for non-bank and 58 percent for the bank with a standard deviation of 32 percent and 31 percent respectively. This indicates that there is a low dispersion in the composition of the top 10 institutional ownership of Malaysia's public firms. In profound observation at the individual firm's institutional ownership, the maximum value of the top 10 institutional ownership is 97 percent which is by Bintulu Port Holdings Bhd

[24] Banks and non-banks are separated because of a high difference in total assets and computation of Debt-Assets. According to Word scope DataStream, Debt-Assets for non-bank is (Short Term Debt + Current Portion of Long Term Debt + Long Term Debt)/(Total Assets) while for the bank, Debt-Assets is (Short Term Debt + Current Portion of Long Term Debt + Long Term Debt?/(Total Assets – Customer Liabilities on Acceptance).

during second quarter 2018. The least amount of institutional ownership for these past years is 0 percent[25].

For the total assets of all firms in the sample, banks recorded higher value of total assets with average of RM209 millions with a standard deviation of RM 197 million compared to non-bank which its total assets in average are RM 6.452 million with high dispersion of RM 20.210 million standard deviation. The most top total asset is RM764.442 million which is by Malayan Banking Berhad during the second quarter of 2018. Meanwhile, the lowest total asset is from CCM Duopharma Biotech Bhd which is RM 0.150 million during the second quarter of 2008. In terms of Debt-Assets (leverage), the average value for non-bank firms is higher than banks which is 0.213 with 0.162 standard deviations. MMC Corporation reports the maximum leverage in the second quarter of 2008 with Debt-Assets value of 0.584. The lowest leverage is 0.05 which is recorded by PPB Group Bhd in the second quarter of 2013.

As for Return on Assets (ROA) or profitability, the average value is about 0.05 with a standard deviation of 0.095 for non-banks an average of 0.010 with a standard deviation of 0.002 for banks. The distribution of profitability in the non-banks is high compared to banks. The maximum ROA recorded is by Digi. Com Bhd during 2013 with the value of 0.455. On the other hand, the lowest amount of ROA reported is -0.4145 which is from Media Prima Bhd during the second quarter of 2018.

Figure 4.1 below shows the movement of the average stock returns of public firms with government institutional investors in Malaysia around the respective election period from the year 2008 until 2018. As can be observed in the graph, the average stock returns after the announcement of election result (t+1) are the highest in average with a return of 0.016 while the lowest return was marked on election day (t

[25] which is by CCM Duopharma, TIME Dot Com Bhd, TH Plantation, Syarikat Takaful Malaysia Berhad, MBM Resources Berhad, Genting Plantation Berhad, Media Prima Bhd, KPJ Healthcare Berhad, Cahya Mata Sarawak Bhd and Bintulu Port Holding Bhd during second quarter 2008

0) with an average value of -0.02. Another obvious result seems to occur during day t +10 where the average return is second higher after the election. In general, the average returns of the sample firms is observed to be stable with up and down trend in the remaining window period.

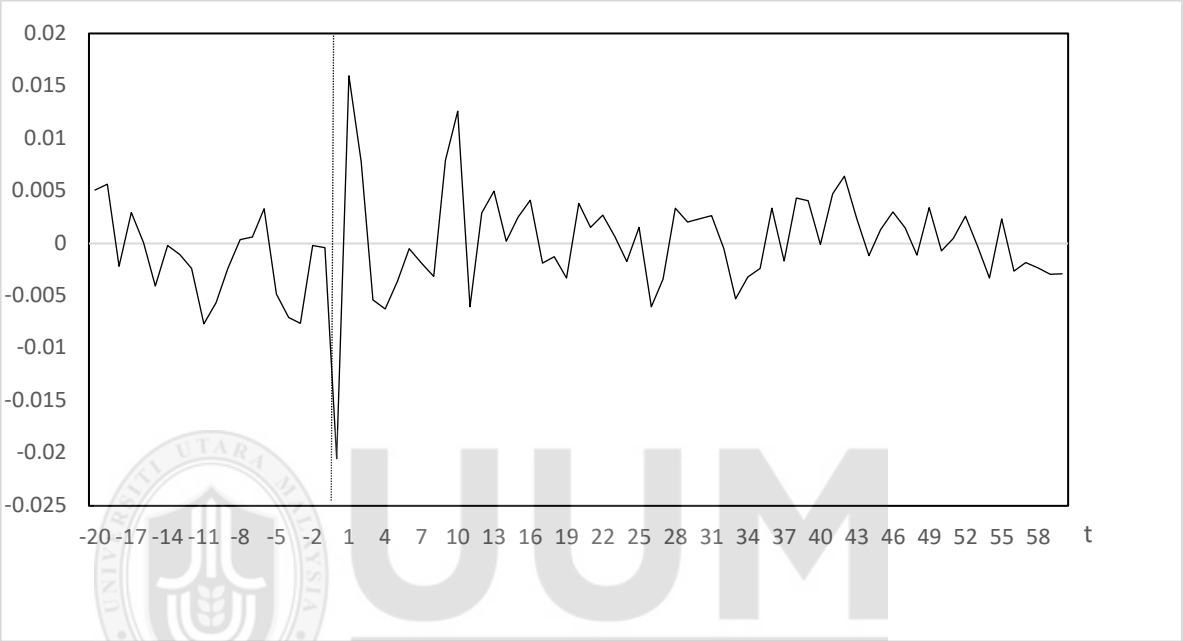


Figure 4.7

The average stocks returns of public firms with government institutional holdings in Malaysia around elections over the year 2008 – 2018

4.2 Presence of Abnormal Return During Election

Table 4.2, 4.4 and 4.6 shows the average abnormal returns (AAR) and cumulative average abnormal return (CAAR) for the sample period during 12th, 13th and 14th general election using market model (MM) and market adjusted return (MAR) while Table 4.3,4.5 and 4.7 show the CAAR during the different window period.

Table 4.5

AAR and CAAR of firms with government institutional holdings 20 days before the election and 60 days after the election during the 12th general election

Day	MM				MAR			
	AAR	t-value	CAAR	t-value	AAR	t-value	CAAR	t-value
t-20	-0.011	-0.775	-0.011	0.000	-0.011	-0.126	-0.011	-0.126
t-19	0.001	0.028	-0.010	-1.253	0.001	0.005	-0.010	-1.239
t-18	-0.007	-0.205	-0.017**	-2.358	-0.007	-0.030	-0.016**	-2.326
t-17	-0.002	-0.139	-0.019**	-2.627	-0.002	-0.021	-0.019**	-2.604
t-16	0.000	0.023	-0.019**	-2.225	0.001	0.007	-0.018**	-2.116
t-15	0.002	0.163	-0.017*	-1.684	0.003	0.026	-0.015	-1.528
t-14	-0.005	-0.261	-0.021**	-2.158	-0.005	-0.038	-0.020*	-1.984
t-13	-0.001	-0.069	-0.023**	-2.283	-0.001	-0.007	-0.021**	-2.058
t-12	-0.001	-0.020	-0.023**	-2.298	0.000	0.000	-0.021*	-2.008
t-11	0.001	0.056	-0.022**	-2.097	0.002	0.012	-0.019*	-1.749
t-10	-0.009	-0.368	-0.031**	-2.528	-0.009	-0.054	-0.028**	-2.199
t-9	0.004	0.143	-0.027*	-1.942	0.004	0.023	-0.024	-1.672
t-8	0.000	-0.016	-0.027*	-1.961	0.000	-0.001	-0.024	-1.678
t-7	0.000	0.027	-0.027*	-1.900	0.001	0.007	-0.023	-1.595
t-6	0.011	0.350	-0.016	-0.837	0.011	0.056	-0.012	-0.605
t-5	0.005	0.301	-0.010	-0.526	0.006	0.052	-0.006	-0.274
t-4	-0.002	-0.082	-0.012	-0.603	-0.001	-0.008	-0.007	-0.323
t-3	0.003	0.124	-0.009	-0.446	0.004	0.023	-0.003	-0.131
t-2	-0.006	-0.405	-0.015	-0.727	-0.006	-0.062	-0.009	-0.420
t-1	-0.001	-0.050	-0.016	-0.790	-0.001	-0.006	-0.010	-0.467
t-0	0.006	0.129	-0.010	-0.455	0.009	0.017	-0.001	-0.041
t+1	-0.001	-0.052	-0.011	-0.523	-0.002	-0.009	-0.003	-0.123
t+2	-0.001	-0.047	-0.013	-0.575	-0.001	-0.009	-0.004	-0.184
t+3	0.001	0.037	-0.012	-0.539	0.002	0.011	-0.003	-0.114
t+4	-0.005	-0.186	-0.017	-0.770	-0.005	-0.027	-0.008	-0.325
t+5	-0.005	-0.232	-0.022	-0.975	-0.004	-0.026	-0.012	-0.501
t+6	0.004	0.111	-0.018	-0.784	0.004	0.018	-0.008	-0.324
t+7	-0.005	-0.265	-0.023	-0.988	-0.005	-0.041	-0.013	-0.519
t+8	0.003	0.197	-0.020	-0.833	0.004	0.032	-0.009	-0.371
t+9	0.006	0.374	-0.014	-0.559	0.006	0.058	-0.003	-0.120
t+10	0.016	0.728	0.002	0.065	0.016	0.104	0.013	0.416
t+11	-0.007	-0.177	-0.005	-0.153	-0.007	-0.029	0.006	0.185
t+12	-0.010	-0.328	-0.014	-0.456	-0.010	-0.049	-0.004	-0.126
t+13	0.001	0.056	-0.013	-0.409	0.002	0.009	-0.003	-0.079
t+14	-0.012	-0.392	-0.025	-0.748	-0.012	-0.060	-0.015	-0.423
t+15	0.003	0.130	-0.022	-0.651	0.004	0.023	-0.011	-0.319
t+16	-0.011	-0.625	-0.033	-0.926	-0.010	-0.096	-0.022	-0.593
t+17	0.000	0.034	-0.032	-0.913	0.001	0.009	-0.021	-0.569
t+18	0.010	0.512	-0.023	-0.610	0.010	0.090	-0.010	-0.275
t+19	0.002	0.137	-0.021	-0.556	0.002	0.024	-0.008	-0.215
t+20	0.004	0.289	-0.017	-0.458	0.004	0.045	-0.004	-0.115
t+30	-0.004	-0.177	-0.012	-0.250	-0.004	-0.026	0.002	0.032
t+40	0.005	0.240	-0.005	-0.099	0.005	0.038	0.011	0.191
t+50	-0.004	-0.290	-0.031	-0.523	-0.004	-0.042	-0.013	-0.220
t+60	-0.002	-0.061	-0.048	-0.737	-0.001	-0.006	-0.027	-0.393

Table 4.6
CAAR of firms with government institutional holdings in different window period during the 12th general election

(0 to +5)	-0.006	-0.718	-0.002	-0.208
(0 to +10)	0.018	0.934	0.023	1.144
(0 to +20)	-0.001	-0.022	0.006	0.181
(0 to +30)	0.004	0.096	0.012	0.261
(0 to +40)	0.011	0.217	0.021	0.405
(0 to +50)	-0.015	-0.270	-0.003	-0.061
(0 to +60)	-0.032	-0.518	-0.017	-0.320

A superscript *, ** or *** indicates significance at 10 percent,5 percent or 1 percent confidence level, respectively

12th general election demonstrates significant market reaction only during pre-election period starts from the day -18 until -7 with significant negative CAAR with at least 10 percent level. The result is robust for the period -18 until -10 where both Market Model and Market Adjusted Return method shows significant negative CAAR. The AR does not show any significant result during the whole study window from the day -20 until +60. Besides, the CAAR also show no significant effect when tested in different window period length.

Table 4.7

AAR and CAAR of firms with government institutional holdings 20 days before the election and 60 days after the election during the 13th general election

Day	MM				MAR			
	AAR	t-value	CAAR	t-value	AAR	t-value	CAAR	t-value
t-20	0.002	0.218	0.002	0.218	0.002	0.233	0.002	0.036
t-19	0.003	0.266	0.005	5.899	0.004	0.277	0.006***	6.151
t-18	-0.001	-0.121	0.004	1.261	-0.001	-0.112	0.005	1.366
t-17	-0.001	-0.090	0.003	0.772	-0.001	-0.089	0.003	0.865
t-16	-0.003	-0.222	0.000	0.028	-0.003	-0.233	0.001	0.098
t-15	0.001	0.094	0.001	0.217	0.001	0.128	0.002	0.343
t-14	-0.002	-0.214	-0.001	-0.175	-0.002	-0.196	0.000	-0.012
t-13	0.000	-0.055	-0.001	-0.260	0.000	-0.042	0.000	-0.075
t-12	0.003	0.235	0.002	0.297	0.003	0.230	0.003	0.439
t-11	0.002	0.247	0.004	0.658	0.003	0.271	0.005	0.823
t-10	-0.003	-0.267	0.001	0.203	-0.003	-0.250	0.003	0.381
t-9	-0.008	-0.318	-0.006	-0.600	-0.007	-0.312	-0.005	-0.457
t-8	0.000	0.014	-0.006	-0.593	0.000	0.061	-0.004	-0.422
t-7	-0.002	-0.228	-0.008	-0.789	-0.002	-0.231	-0.006	-0.617
t-6	-0.001	-0.058	-0.009	-0.862	-0.001	-0.044	-0.007	-0.672
t-5	0.001	0.133	-0.008	-0.762	0.001	0.142	-0.006	-0.570
t-4	-0.003	-0.237	-0.010	-1.004	-0.002	-0.220	-0.008	-0.795
t-3	-0.005	-0.376	-0.015	-1.352	-0.005	-0.389	-0.013	-1.153
t-2	0.000	-0.044	-0.015	-1.385	0.000	-0.015	-0.013*	-1.163
t-1	0.005	0.379	-0.010	-0.790	0.006	0.441	-0.007	-0.550
t-0	0.000	0.012	-0.010	-0.767	-0.001	-0.029	-0.008	-0.609
t+1	0.005	0.274	-0.005	-0.364	0.004	0.251	-0.003	-0.252
t+2	-0.002	-0.174	-0.007	-0.540	-0.002	-0.157	-0.006	-0.414
t+3	0.013	0.648	0.006	0.294	0.013	0.687	0.008	0.396
t+4	0.005	0.258	0.011	0.549	0.005	0.258	0.013	0.647
t+5	0.003	0.169	0.014	0.718	0.003	0.152	0.016	0.806
t+6	-0.006	-0.258	0.008	0.402	-0.006	-0.254	0.010	0.497
t+7	0.007	0.390	0.015	0.698	0.007	0.414	0.017	0.796
t+8	0.005	0.235	0.020	0.909	0.005	0.252	0.023	1.022
t+9	0.007	0.492	0.027	1.178	0.007	0.491	0.030	1.289
t+10	0.009	0.367	0.036	1.477	0.009	0.361	0.038	1.582
t+11	-0.005	-0.344	0.031	1.228	-0.005	-0.350	0.033	1.329
t+12	-0.001	-0.037	0.030	1.198	0.000	-0.025	0.033	1.308
t+13	-0.002	-0.166	0.028	1.097	-0.002	-0.138	0.031	1.223
t+14	0.007	0.434	0.034	1.330	0.007	0.456	0.038	1.459
t+15	0.004	0.225	0.038	1.479	0.004	0.222	0.042	1.606
t+16	0.004	0.254	0.042	1.624	0.004	0.251	0.046*	1.750
t+17	0.000	-0.020	0.042	1.612	0.000	0.004	0.046*	1.751
t+18	0.004	0.286	0.046*	1.754	0.004	0.301	0.050*	1.900
t+19	-0.003	-0.128	0.043	1.600	-0.003	-0.120	0.047*	1.754
t+20	0.001	0.055	0.044	1.646	0.001	0.052	0.048*	1.798
t+30	0.000	-0.024	0.043	1.256	0.004	0.321	0.044	1.445
t+40	-0.001	-0.046	0.043	1.172	0.000	3.763	0.046	1.404
t+50	0.008	0.252	0.050	1.187	0.000	3.566	0.048	1.448
t+60	0.006	0.268	0.056	1.096	0.001	5.363	0.047	1.356

Table 4.8
CAAR of firms with government institutional holdings in different window period during the 13th general election

(0 to +5)	0.024**	2.406	0.023**	2.025
(0 to +10)	0.046***	2.938	0.046***	2.878
(0 to +20)	0.054**	2.643	0.055**	2.701
(0 to +30)	0.049*	1.850	0.052*	1.969
(0 to +40)	0.048*	1.684	0.053*	1.859
(0 to +50)	0.050	1.675	0.055*	1.881
(0 to +60)	0.047	1.551	0.054**	2.086

A superscript *, ** or *** indicates significance at 10 percent,5 percent or 1 percent confidence level, respectively

Table 4.4 and 4.5 demonstrate the same result as 12th general election in terms of AR. There is no significant AR for the whole study period. In contrast, there is high positive significant CAAR in period after election during day 16,17,18,19,20,212,2,23,24 and 25 with 10 percent level and 5 percent level at day 24. In terms of different window period, the result shows that CAAR is positively significant at window (0 to +5), (0 to +10), (0 to +20), (0 to +30), (0 to +40), (0 to +50) and (0 to +60) with value of 0.023, 0.046, 0.055, 0.052, 0.053, 0.055 and 0.054 respectively. The significance of window (0 to +10) is high with robust result where both MM and MAR shows 1 percent confidence level.

Table 4.9

AAR and CAAR of firms with government institutional holdings 20 days before the election and 60 days after the election during the 14th general election

Day	MM				MAR			
	AAR	t-value	CAAR	t-value	AAR	t-value	CAAR	t-value
t-20	0.012	0.457	0.012	0.457	0.011	0.411	0.011	0.063
t-19	0.002	0.068	0.014*	1.947	0.001	0.041	0.012*	1.739
t-18	-0.006	-0.306	0.008	0.675	-0.006	-0.346	0.006	0.502
t-17	0.003	0.248	0.011	0.975	0.003	0.222	0.008	0.764
t-16	-0.003	-0.196	0.008	0.703	-0.003	-0.255	0.005	0.431
t-15	-0.001	-0.099	0.007	0.582	-0.002	-0.137	0.003	0.268
t-14	-0.001	-0.095	0.005	0.459	-0.002	-0.123	0.001	0.109
t-13	-0.003	-0.178	0.002	0.182	-0.004	-0.243	-0.003	-0.231
t-12	0.002	0.150	0.004	0.322	0.001	0.123	-0.001	-0.113
t-11	-0.002	-0.133	0.002	0.157	-0.002	-0.140	-0.004	-0.295
t-10	0.001	0.119	0.003	0.273	0.001	0.112	-0.002	-0.183
t-9	0.000	-0.019	0.003	0.250	0.000	-0.025	-0.003	-0.216
t-8	0.004	0.259	0.007	0.553	0.004	0.230	0.001	0.066
t-7	0.000	-0.014	0.007	0.538	-0.001	-0.066	0.000	-0.011
t-6	0.005	0.234	0.011	0.854	0.004	0.196	0.004	0.277
t-5	0.005	0.255	0.017	1.186	0.005	0.256	0.009	0.632
t-4	-0.003	-0.203	0.014	0.968	-0.003	-0.241	0.006	0.400
t-3	0.004	0.321	0.018	1.212	0.004	0.302	0.010	0.637
t-2	0.001	0.070	0.019	1.259	0.001	0.066	0.010	0.677
t-1	-0.002	-0.114	0.017	1.128	-0.003	-0.193	0.007	0.486
t-0	-0.005	-0.070	0.012	0.718	-0.006	-0.079	0.002	0.093
t+1	0.005	0.233	0.017	0.990	0.005	0.212	0.006	0.355
t+2	0.003	0.088	0.019	1.137	0.002	0.062	0.008	0.458
t+3	0.001	0.031	0.021	1.226	0.001	0.024	0.009	0.523
t+4	-0.016	-0.277	0.004	0.169	-0.017	-0.285	-0.008	-0.334
t+5	-0.003	-0.071	0.001	0.045	-0.003	-0.081	-0.011	-0.472
t+6	0.002	0.090	0.004	0.148	0.002	0.083	-0.009	-0.377
t+7	0.011	0.322	0.015	0.562	0.012	0.392	0.003	0.104
t+8	0.006	0.298	0.021	0.779	0.007	0.292	0.009	0.336
t+9	-0.004	-0.202	0.017	0.619	-0.005	-0.273	0.004	0.146
t+10	0.011	0.334	0.028	0.948	0.011	0.366	0.015	0.495
t+11	-0.005	-0.108	0.023	0.758	-0.004	-0.078	0.011	0.363
t+12	-0.003	-0.092	0.020	0.663	-0.004	-0.133	0.007	0.235
t+13	0.006	0.270	0.026	0.861	0.005	0.228	0.013	0.406
t+14	0.007	0.340	0.033	1.065	0.006	0.323	0.019	0.599
t+15	0.004	0.233	0.037	1.186	0.003	0.204	0.022	0.705
t+16	0.001	0.053	0.038	1.217	0.000	-0.010	0.022	0.699
t+17	0.003	0.170	0.041	1.303	0.002	0.124	0.024	0.760
t+18	0.001	0.044	0.041	1.328	0.001	0.029	0.025	0.777
t+19	-0.003	-0.161	0.039	1.236	-0.003	-0.188	0.022	0.678
t+20	0.008	0.354	0.047	1.456	0.008	0.368	0.030	0.900
t+30	0.002	0.137	0.066*	1.951	0.002	0.128	0.047	1.363
t+40	-0.007	-0.497	0.056	1.501	-0.007	-0.529	0.032	0.828
t+50	0.002	0.145	0.072*	1.882	0.001	0.098	0.041	1.034
t+60	-0.003	-0.221	0.062	1.543	-0.004	-0.298	0.025**	2.027

Table 4.10
CAAR of firms with government institutional holdings in different window period during the 14th general election

(0 to +5)	-0.016	-0.965	-0.019	-1.154
(0 to +10)	0.011	0.450	0.008	0.302
(0 to +20)	0.030	1.107	0.022	0.803
(0 to +30)	0.049*	1.704	0.040	1.349
(0 to +40)	0.040	1.190	0.025	0.719
(0 to +50)	0.055	1.626	0.033	0.952
(0 to +60)	0.045	1.251	0.017	0.539

A superscript *, ** or *** indicates significance at 10 percent,5 percent or 1 percent confidence level, respectively

14th general election also shows no significant impact on AR as 12th and 13th general election. The CAAR is positively significant start from day 24 until day 60 with the highest significant of 5 percent at day 60. Besides, both MM and MAR also show robust result during the day -19 where both models recorded positive CAAR significant at 10 percent level. In terms of a different window, the CAAR is only significant at the window (0 to +30) with CAAR of 0.049 at 10 percent level.

These finding from three election events thus support hypothesis H_1 where the is abnormal return exist and significant in companies with government holdings during 12th, 13th, and 14th general election. On another note, it come into view that the CAAR for firm's with government holdings after the election date is significant for up to 60 days is a good sign it is inconsistent with Efficient Market Hypothesis (EMH). In particular, the findings show that Malaysian market is semi-strong form due to market reflect on the publicly available information which is in this study, the announcement of general election result, particularly during 13th general election.

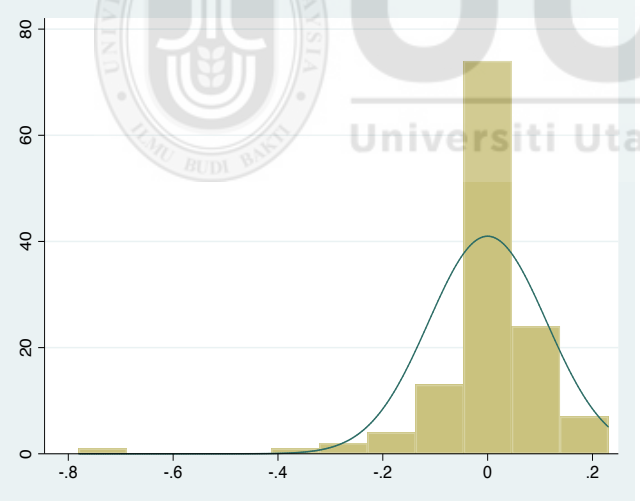
4.3 The result of Diagnostic Testing

Before regression analysis, this section will report the diagnostic test that has been carried out to ensure the model constructed in the previous chapter is valid and could

be interpreted in great confidence. The techniques to be discussed are normality distribution, multicollinearity, autocorrelation, and heteroscedasticity.

4.3.1 Normality of Distribution

Figure 4.2 below shows that the regression residuals are not normally distributed. The probability of the normality test show statistics of 0.0000 which is less than 0.05 indicates that the data is not significant. Thus, the null hypothesis that the data follows a normal distribution is rejected. Although the finding shows that the data is not normal, the violation of non-normality should not be a main concerned since in finance study, using secondary data usually resulted in an extreme value which provides a great deviate of residual compared to other studies.



Series	Residuals
Sample	126
Observations	126
Mean	-8.89e-11
Maximum	0.229957
Minimum	-0.779955
Std Dev	0.112599
Skewness	0.000000
Kurtosis	0.000000
Adjusted Chi-squared probability	0.000000

Figure 4.8

The result of Normality Test

4.3.2 Autocorrelation

Autocorrelation is an issue that generally arises when computing regression analysis. Autocorrelation may affect regression whereby it will underestimate the actual variance in which no pairwise independent among the residuals of regression

(Wang & Akabay, 1995). Durbin-Watson (DW) is an indicator to identify the autocorrelation model, and its value must be around 2.0 to make sure there is no autocorrelation exists. If the value is lower than 2.0, there is evidence of positive serial correlation while if the value is smaller than 1.0; there may be cause for alarm. Referring to Table 4.9 and 4.10 below, the value of DW is 1.78 and 1.95 which indicate that the null hypothesis of no autocorrelation exist is rejected. Thus, this sample shows that there is positive autocorrelation exists in the regression model. There is a need to perform autocorrelation correction by using the Newey-West Method.

Table 4.11
Durbin Watson test of sample data with the dependent variable of CAR (0,5)

Dependent Variable: CAR (0,5) Method: Least Squares Sample: 2008:2 2018:2 Included Observations: 126				
Variable	Coefficient	Std. Error	t-statistics	Prob
Constant	0.078	0.107	0.730	0.468
IO	0.022	0.032	0.690	0.490
Total Assets	-0.010	0.015	-0.690	0.492
Leverage	-0.119	0.067	-1.790	0.076
ROA	0.085	0.118	0.720	0.472
R-squared	0.042	F-Statistics		1.320
Adjusted R-squared	0.010	Prob (F-Statistics)		0.265
Sum squared resid	1.585			
Durbin-Watson stat	1.775			

Table 4.12
Durbin Watson test of sample data with the dependent variable of CAR (0,10)

Dependent Variable: CAR (0,10) Method: Least Squares Sample: 2008:2 2018:2 Included Observations: 126				
Variable	Coefficient	Std. Error	t-statistics	Prob
Constant	0.239	0.103	2.320	0.022
IO	0.021	0.031	0.680	0.496
Total Assets	-0.028	0.014	-1.930	0.056
Leverage	-0.139	0.064	-2.170	0.032
ROA	-0.114	0.114	-1.000	0.318
R-squared	0.064	F-Statistics		2.080
Adjusted R-squared	0.033	Prob (F-Statistics)		0.088
Sum squared resid	1.467			
Durbin-Watson stat	1.945			

4.3.3 Heteroscedasticity Test

Heteroscedasticity is a circumstance where the variability of the variables is not equal across the range of values of a second variable (dependent variable) that predict it (Taylor, 2013). The error term, ε is an important assumption to determine whether it is homoscedastic or heteroscedastic in regression function. If the result shows homoscedasticity, it means that all variables are in the same variance. Otherwise, heteroscedasticity shows that all variables in different variance. Heteroscedasticity can be tested using the White test. Table 4.11and 4.12 below shows the White's test result of the regression model in this study. According to the Table, the value of chi-squared statistics indicates that the null hypothesis of homoscedasticity is accepted. Both tables show probability value that is greater than 0.05 which suggest that there is no heteroscedasticity problem exists.

Table 4.13
White test of sample data with the dependent variable of CAR (0,5)

F-statistics	1.320	Prob. F (4,121)	
Prob. Chi-Square (2)	0.950		

Dependent Variable: CAR (0,5)
Method: Least Squares
Sample: 2008:2 2018:2
Included Observations: 126

Variable	Coefficient	Std. Error	t-statistics	Prob
Constant	0.078	0.107	0.730	0.468
IO	0.022	0.032	0.690	0.490
Total Assets	-0.010	0.015	-0.690	0.492
Leverage	-0.119	0.067	-1.790	0.076
ROA	0.085	0.118	0.720	0.472
R-squared	0.042	F-Statistics		1.320
Adjusted R-squared	0.010	Prob (F-Statistics)		0.265
Sum squared resid	1.585			
Durbin-Watson stat	1.775			

Table 4.14
White test of sample data with the dependent variable of CAR (0,10)

F-statistics	2.080	Prob. F (4,121)	0.088
Prob. Chi-Square (2)	0.684		

Dependent Variable: CAR (0,10)
Method: Least Squares
Sample: 2008:2 2018:2
Included Observations: 126

Variable	Coefficient	Std. Error	t-statistics	Prob
Constant	0.239	0.103	2.320	0.022
IO	0.021	0.031	0.680	0.496
Total Assets	-0.028	0.014	-1.930	0.056
Leverage	-0.139	0.064	-2.170	0.032
ROA	-0.114	0.114	-1.000	0.318
R-squared	0.064	F-Statistics		2.080
Adjusted R-squared	0.033	Prob (F-Statistics)		0.088
Sum squared resid	1.467			
Durbin-Watson stat	1.945			

4.3.4 Multicollinearity

For satisfying multicollinearity, the Variance Inflation Factor (VIF) should be less than 10 (Urrutia et al., 2015). VIF can detect multicollinearity problem by determining whether there is a strong linear relationship between two or more variables. Referring to Table 4.8 below, the VIF values of all variables are less than 10, which indicate that there is no multicollinearity problem exists in the regression model. This means that there will be no bias while estimating the variables' coefficient. Therefore, there is no need to exclude any variable from the regression model.

Table 4.15
Variance Inflation Factors of sample data

Variance Inflation Factors
Sample: 2008:2 2018:2
Included Observations: 126

Variable	Coefficient Variance	Uncentered VIF	Mean VIF
Constant	0.0781	NA	NA
IO	0.0225	1.04	1.05
Total Assets	-0.1039	1.08	1.05
Leverage	-0.1193	1.02	1.05
ROA	-0.1039	1.06	1.05

4.4 The result from Regression Analysis

This study uses multiple cross-sectional regression to test the hypotheses developed in chapter three. Also, this research estimates model to observe the effect of independent variables on the announcement on the election result. Table 4.13 below shows the finding from the cumulative abnormal return model that has been corrected for autocorrelation problem by applying Newey-West regression.

Table 4.16
The result of Multistage Regression of Effect of Independent Variables on Abnormal Returns

Variables	CAR (0,5)		CAR (0,10)	
	Coefficient	t-statistics	Coefficient	t-statistics
Constant	0.0781	0.88	0.2394***	2.58
IO	0.0225	0.91	0.0213	0.93
SIZE	-0.0104	-0.89	-0.0280***	-2.25
LEVERAGE	-0.1194*	-1.83	-0.1388***	-2.21
ROA	0.0852	0.70	-0.1140	-0.98
Adjusted R-squared	0.0102		0.0330	
F-Statistics	1.4000		2.3400	
Number of observations	126		126	
Durbin-Watson stat	1.7751		1.9447	

A superscript *, ** or *** indicates significance at 10 percent,5 percent or 1 percent confidence level, respectively

From Table 4.13 above, the adjusted R-squared is about 1 percent and 3 percent for dependent variable CAR (0,5) and CAR (0,10) respectively. This explained that the model incorporated with one independent variable and three control variables has a weak relationship between cumulative abnormal return and the independent variable. In terms of the sign of the coefficient, there is a significant linear relationship between the general election and independent and control variables.

The regression result is robust even after regression is segregated in which the variables have been tested in different election events. This segregated result is attached in the Appendix E. The following section will discuss the regression results on the influence of the primary variable on the cumulative abnormal returns.

4.4.1 Effect of Independent Variable and Control Variables on Announcement of Election Result

Results in Table 4.13 show one independent variable (institutional ownership) and three control variables (Size, Leverage, and ROA) were analyzed to explain the effect of the general election on stock returns. Findings on tested hypotheses H_2, $H_{3a,}$ H_{3b}, and H_{3c} are provided in the following section. In the section, each variable will be discussed separately.

A. Institutional Ownership

Institutional ownership (IO) in this study is a proxy of summation of share outstanding percentage of top 10 institutional investors. Table 4.13 shows that IO has a positive relationship with a cumulative abnormal return during the general election. However, the result is not significant. Thus, the hypothesis H_2 in which initially stated that there are significant relationships between abnormal stock return and institutional investors ownership is rejected. This result contradicts to previous findings by Bruton et al. (2010), Elyasiani and Jia (2010), Lin and Fu (2017) and Wong and Hooy (2017) in which they find a significant positive relationship between institutional ownership and stock return.

This imply that the findings follows passive monitoring hypothesis which based on the argument that institutional investors might be the short term investors who are acting like common traders instead of monitoring the management and improving the corporate governance in the firm (Shleifer & Vishny, 1986). If there is passive monitoring exists in a firm, it is expected that there will be weak or no relationship between firm performance and institutional ownership. Thus, in this study, it can be concluded that institutional investors in Malaysia play a passive monitoring role where

they invest as common traders in a firm instead of monitoring and improving the performance.

B. Firm's Size

Size in this study measured by total assets of a firm. From Table 4.13 above, the result shows a high negative significant relationship between a firm's size and cumulative abnormal return during window period t=0 until t=+10. The same outcome is observed during the period (0,5), but it is not significant. The hypothesis H_{3a} which stated that there is a significant relationship between the firm's size and abnormal stock return is accepted. This finding is consistent with past studies by Belghitar et al. (2011), Lin and Fu (2017) and Wong and Hooy (2016). This show that the bigger the size of the firm, the lower abnormal return observed. In this case, an increase of 1 log of total assets will reduce the abnormal return by -0.027959. Possible reasons to explain the negative relationship between a firm's size and stock return is caused by deterioration in monitoring ability during the uncertain situation such as general election which reduced investor's confidence in firms (Aloui & Jarboui, 2017).

C. Firm's Leverage

Leverage in this study is measured as the ratio of total liabilities to total assets. From Table 4.13, it is expected that there is a significant relationship between abnormal return and firm's leverage under both variables tested. Both depended variables show a negative relationship with the firm's leverage. However, the significant level is higher for CAR (0,10) with 1 percent confidence level compared to CAR (0,5) with only 10 percent confidence level. Therefore, the fourth hypothesis, H_{3b} (There is a significant relationship between abnormal stock return and Firm's leverage) is accepted. These results support the findings from previous studies by

Elyasiani (2008), Lin and Fu (2017), Liu et al. (2017) and Wong and Hooy, (2016). One possible reason to explain these findings caused by under-investment situation by investors. Based on the debt overhang theory, the higher leverage increases the probability of a firm obtaining a positive NPV project in the future. The payoff, however, is expected to be shared with shareholders only after fulfilling the debt obligation.

D. Firm's Profitability

ROA is used as a proxy for profitability which measured by computing the ratio of profit over total assets. Table 4.13 shows that ROA gives a different impact on different CAR. ROA is positively related to CAR (0,5) with a coefficient value of 0.085207 while during CAR (0,10) ROA reported a negative relationship with dependent variable with -0.113992. However, both results are insignificant which indicate that the hypothesis H_{3c} (There is a negative relationship between abnormal stock return and Firm's profitability) is rejected. This result opposes findings by Fuss and Bechtel (2008) wherein semi-strong form market, it is expected that there will be adverse effects on the firm's profit which should be incorporated in today stock's price. Past studies also highlight that investors should be vigilant during pre-general election periods in Malaysia as their companies experiencing high-profit volatility and compensation for abnormal high returns is negligible (Chian & Jiun, 2018).

4.5 Conclusion

The result from event study shows that there is significant before election result during the day -18 until -7 during the 12th general election. Both 13th and 14th general elections show significant after election effect earliest at date +9 up to day +60 with

at least 10 percent confidence level. The CAAR is also significant during post-election window period with robust result during 13th general election where the CAAR is significantly positive during all windows tested while during the 14th general election, the CAAR is positively significant only at (0 to +30). Thus, the event study supports H_1.From regression result, this study finds that institutional ownership does not affect abnormal return which rejects H_2. Firm's size, on the other hand, support H_{3a} where there is a significant negative relationship between a firm's size and abnormal stock return. The same outcome observes in the firm's leverage where there is a significant negative relationship between abnormal stock return and Firm's leverage which support H_{3b}. Last, but not least, the firm's profitability does not show any significant impact on the stock return which concluded that the last hypothesis, H_{3c}, is rejected.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.0 Introduction

This chapter illustrates the overall summary of the present study. Section 5.2 provides a review of the research that includes the empirical findings of the results. The following section explains the implication of the study according to the computed results following by the limitation in this study. The final section provides a recommendation for future research.

5.1 Summary of the Study

This chapter summarises the critical contribution of this study and its empirical findings. The motivation of this study is to provide empirical evidence on the impact of the general election on the stock return of companies with institutional ownership in Malaysia. Besides, other variables in which act as control such as size, leverage and profitability are applied in this research. To carry out study, 42 Malaysian public listed companies with government holding over the period of 2008 until 2018 is examined. The empirical findings of the research state that there is significant abnormal return recorded during 12th, 13th and 14th general election in the stock return of companies with government holdings. The abnormal return, however, only show effects at least 13 days after the announcement of the election result. This outcome indicates that the market in Malaysia is inefficient since it is in contrast to the EMH, particularly during 13th general election. An efficient market should have a stabilised CAAR after the event date because stock's prices adjust immediately to reflect the new information, and in this study, is the announcement of the general election result. Other than that, institutional ownership is insignificantly related to the stock return. This suggests that

institutional investors in Malaysia play the role of passive investors where they only favour the return on their investment as an ordinary trader. The existence of institutional investors in the firm is view as the same as other retail investors where they did not play a role in active monitoring or improving the firm's performance. Thus, the result shows that the existence of institutional investors gives no impact on the firm's stock return. For control variables, only the firm's size and firm's leverage are significantly impacted the abnormal return during the period of general election. The negative relationship between a firm's size and stock return is caused by deterioration in the monitoring ability during an important event such as general election which reduced investor's confidence in firms.

5.2 Implication of the Study

There are two implications deducted from this study namely practical and theoretical. In the case of fund manager and investors, this study can help local stockholders to improve their understanding by evaluating the effect of political risk in the Malaysian stock market. In general, it is common knowledge to everyone that general election could create political uncertainty which sometimes pushes the investors to withdraw their equity holdings during the event. This study proves that this is true during very tensed general election environment witnessed during the 13th and 14th general election in Malaysia. The result shows that the market is inefficient during this time where abnormal stock return existed. This result could guide investors in deciding on diversifying their portfolio in the next election depending on the environment. In next election in Malaysia, investors could decide on investing in any government holding company to obtain higher return of their investment. The best time to buy the shares should be few days before the election day to gain the higher return of their capital for up to 60 days after the announcement of general election

result. The same steps could be taken by fund manager. Since fund manager has higher fund allocation compared to retail investors, they could allocate their funds in all government owned companies in Malaysia few days before general election to acquire higher return within 60 days after the announcement of general election result.

As for researchers, this is one of the first papers attempting to understand the impact of Malaysia general election considering the fight and changes of the ruling government on the Malaysia stock market. Besides, the uses of event study methodology on observing the abnormal return for 81 days window period provides a better understanding and coherent view of the study. Thus, this study paves the road for future researchers who wish to employ the event study methodology to understand better the effects of general elections in Malaysia .

5.3 Limitation of the Study

This study examines the relationship between abnormal stock return and its explanatory variables (institutional ownership, size, leverage and profitability) during 12th, 13th and 14th general election in Malaysia. The limitation of this study includes small sample size selected which is only 42 companies. Only public companies with government holdings are used as proxy firms with institutional ownership. Besides, this study just concerned about the 12th, 13th and 14th Malaysia general election. It focuses solely on studying if the abnormal return is present during these periods. As such, all result about this study is only valid in explaining the 12th, 13th and 14th Malaysia general election, not in any previous general elections. The result should not be generalised of all future or past general elections in Malaysia

5.4 Recommendation for Future Research

As mentioned in the previous section, this research only studies the last three Malaysia general election. Therefore, the results are not a representation of general elections as a whole in Malaysia. It would be interesting to compare amongst the previous 11 general elections in Malaysia to find out if the results are consistent throughout the elections. It would give a rough picture of the impact of general elections on the stock return of companies with government holdings in general. The study could be extended to investigate the same effect on other companies with different characteristics such as different sectors, different type or different institutional ownership holdings. It would be beneficial if future researches can make it possible to forecast the impact of general elections in Malaysia on stock returns of different type of companies. Furthermore, the impact of general election could be examined with consideration of other internal corporate governance factors such as board of directors characteristics. Besides, this study found that there is abnormal return exists during the study window, but the institutional ownership is insignificantly linked to the abnormal return. To understand the reason behind this, it will require a research dedicated entirely to understand why institutional ownership does not affect stock return and does it show the same outcome in the events apart from general elections, such as merger and acquisition and debt restructuring. The announcement use in this study is also considered as non-clean announcement since there is no filtrations of other announcement or event made by all companies selected in the sample study. Hence, new study with similar approach could be done with consideration of clean announcement by all sample in this paper.

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APPENDIX A
List of Companies with 7 GLICs Holdings (as at December 2018)

1) Minister of Finance Incorporated (MOF Inc)		
1Malaysia Development Berhad (1MDB)	36. Rangkaian Hotel Seri Malaysia Sdn Bhd	74. Bintulu Port Holdings Bhd
2. Amanah Raya Berhad (ARB)	37. Sepang International Circuit Sdn Bhd (SIC)	75.Bintulu Port Sdn Bhd
3. Astronautic Technology (M) Sdn Bhd (ATSB)	38. SIRIM Berhad	76.Boustead Naval Shipyard Sdn Bhd
4. Bank Pembangunan Malaysia Berhad	39. Small Medium Enterprise Development Bank Malaysia Berhad (SME Bank)	77.Commerce Dot Com Sdn Bhd
5. Bank Pertanian Malaysia (Agrobank)	40. SRC International Sdn Bhd	78.Felda Global Ventures Holdings Berhad
6. Cradle Fund Sdn Bhd	41. Suria Strategic Energy Resources Sdn Bhd	79.FELDA Holdings Bhd
7. Cyberview Sdn Bhd	42. Syarikat Perumahan Negara Bhd (SPNB)	80.HICOM Holding Berhad
8. Export-Import Bank of Malaysia Berhad (EXIM Bank)	43. Technology Park Malaysia Corporation Sdn Bhd (TPM)	81.Johor Port Bhd
9. FELCRA Berhad	44. UDA Holdings Bhd	82.Konsortium Pelabuhan Kemaman Sdn Bhd
10. Halal Industry Development Corporation Sdn Bhd (HDC)	45. Mutiara Smart Sdn Bhd	83. Kuantan Port Consortium Sdn Bhd
11. IJN Holdings Sdn Bhd	1Malaysia Sukuk Global Berhad	84. Malaysia Airport (Sepang) Sdn Bhd
12. Indah Water Konsortium Sdn Bhd (IWK)	47. AES Solutions Sdn Bhd	85.Malaysia Airport Holdings Bhd
13. Inno Bio Ventures Sdn Bhd (IBV)	48. Aset Tanah Nasional Bhd	86.Malaysia Airports Sdn Bhd
14. Institut Terjemahan dan Buku Malaysia Bhd (ITBM)	49. Assets Global Network Sdn Bhd	87.Malaysian Airline System Bhd
15. Jambatan Kedua Sdn Bhd (JKSB)	50. DanaInfra Nasional Berhad	88.Malaysian Maritime Academy Sdn Bhd
16. JKP Sdn Bhd	51. GovCo Holdings Berhad	89.MARDEC Bhd
17. Keretapi Tanah Melayu Berhad (KTMB)	52. K.L. International Airport Bhd (KLIAB)	90.Medical Online Sdn Bhd
18. Khazanah Nasional Berhad	53. Malaysia Development Holding Sdn Bhd	91.MISC Bhd
19. Kumpulan Modal Perdana Sdn Bhd (KMP)	54. Malaysian Sovereign Sukuk Sdn Bhd	92.National Aerospace & Defence Industries Berhad (NADI)
20. Malaysia Debt Ventures Berhad (MDV)	55. Pembinaan PFI Sdn Bhd	93.National Feedlot Corporation Sdn Bhd
21. Malaysia Digital Economy Corporation Sdn Bhd (MDeC)	56. Pengurusan Danaharta Nasional Berhad	94.Northport (Malaysia) Bhd
22. Malaysia Kuwaiti Investment Corporation Sdn Bhd (MKIC)	57. Perwaja Terengganu Sdn Bhd	95.Padiberas Nasional Bhd (BERNAS)
23. Malaysia Rail Link Sdn Bhd	58. Piramid Pertama Sdn Bhd	96.PDX.Com Sdn. Bhd.
24. Malaysian Bioeconomy Development Corporation Sdn Bhd	59. Pyrotechnical Managers Holding Sdn Bhd	97.Pelabuhan Tanjung Pelepas Sdn Bhd
25. Malaysian Venture Capital Management Bhd (MAVCAP)	60. SDE Solutions Sdn Bhd	98.Penang Port Sdn Bhd
26. Mass Rapid Transit Corporation Sdn Bhd (MRT)	61. Syarikat Jaminan Kredit Perumahan Berhad	99.Pos Malaysia Berhad
27. MIMOS Berhad	62. Syarikat Jaminan Pembiayaan Perniagaan Berhad	100.Projek Lebuhraya Usahasama Bhd
28. MyCreative Ventures Sdn. Bhd.	63. Syarikat Tanah & Harta Sdn Bhd	101.Sabah Electricity Sdn Bhd
29. MyHSR Corporation Sdn Bhd	64. Turus Pesawat Sdn Bhd	102.Senai Airport Terminal Services Sdn Bhd
30. Pembinaan BLT Sdn Bhd (PBLT)	65. Wakala Global Sukuk Berhad	103.Telekom Malaysia Berhad
31. Pengurusan Aset Air Berhad (PAAB)	66. Actius Terra Global Holdings Sdn Bhd	104.Tenaga Nasional Berhad
32. Perbadanan Nasional Berhad (PNS)	67. MKD Aman Makmur Sdn Bhd	105.Westport Malaysia Bhd
33. Petroliam Nasional Berhad (PETRONAS)	68. South Side Jewel Sdn Bhd	
34. Prasarana Malaysia Berhad	69.Asean Potash Mining Public Co. Ltd	
35. Prokhas Sdn Bhd	70. Danajamin Nasional Bhd	
	71.Permodalan Nasional Bhd (PNB)	
	72. Syarikat Perumahan Pegawai Kerajaan Sdn Bhd	
	73.Aerospace Technology System Corporation Sdn Bhd	

Source: Ministry of Finance website. Retrieved on 19 January 2019 from http://www.treasury.gov.my/index.php/en/contactus/faqs/gic.html

2) Lembaga Tabung Haji (LTH)		
106. BIMB Holdings Berhad	142. THP Bina Sdn Bhd	185. Deru Semangat Sdn Bhd
107. Bank Islam Malaysia Berhad	143. THPS Capital Sdn Bhd	186. THP Ibok Sdn Bhd
108. Syarikat Al-Ijarah Sdn Bhd	144. THPS OCS Services Ltd	187. Bumi Suria Ventures Sdn Bhd
109. Syarikat Takaful Malaysia Berhad	145. THP Timur Sdn Bhd	188. THP Bukit Berlian Sdn Bhd
110. BIMB Securities (Holdings) Sdn Bhd	146. Ultimate Building Machine (M) Sdn Bhd	189. THP Kota Bahagia Sdn Bhd
111. Farihan Corporation Sdn Bhd	147. THT-HCM JV Sdn Bhd	190. TH Ladang (Sabah & Sarawak) Sdn Bhd
112. Bank Islam Trust Company (Labuan)Ltd	148. THP Australia Development Corp	191. THP Agro Management Sdn Bhd
113. BIMB Investment Management Berhad	149. THP Sydney Bay Views Sdn Bhd	192. PT Persada Kencana Prima
114. BIMB Securities Sdn Bhd	150. THP Mutiara Sdn Bhd	193. Maju Warisanmas Sdn Bhd
115. BIMB Offshore Company Management Services Sdn Bhd	151. THP-SBB JV Sdn Bhd	194. THP Saribas Sdn Bhd
116. BIMSEC Nominees (Asing) Sdn Bhd	152. Keramat Green Development Sdn Bhd	195. THP-YT Plantation Sdn Bhd
117. BIMSEC Nominess (Tempatan) Sdn Bhd	153. THP Hartanah Sdn Bhd	196. Manisraya Sdn Bhd
118. Al Wakalah Nominess (Tempatan) Sdn Bhd	154. THP Perlis Sdn Bhd	197. Hydroflow Sdn Bhd
119. BIMB Foreign Currency Clearing Agency Sdn Bhd	155. THP Bayan Sdn Bhd	198. THP Sabaco Sdn Bhd
120. ASEAN Retakaful International (L) Ltd	156. THP Citaglobal Sdn Bhd	199. THP Suria Mekar Sdn Bhd
121. PT Syarikat Takaful Indonesia	157. TH Properties (Jersey) Ltd	200. Cempaka Teratai Sdn Bhd
122. PT Asuransi Takaful Umum	158. THP Wentworth Point (L) Corporation	201. Kee Wee Plantation Sdn Bhd
123. PT Asuransi Takaful Keluarga	159. TH Marine Sdn Bhd	202. TH PELITA Meludam Sdn Bhd
124. TH Properties Sdn Bhd	160. TH Marine Holding (L) Inc	203. TH Bonggaya Sdn Bhd
125. LTH Property Holdings Ltd	161. Marine 1(L) Inc	204. TH- Usia Jatimas Sdn Bhd
126. LTH Porperty Holdings 2 Ltd	162. TH Alam Holdings (L) Inc	205. TH PELITA Gedong Sdn Bhd
127. LTH Property Investment (L) Inc	163. Alam JV DP1 (L) Inc	206. TH PELITA Sadong Sdn Bhd
128. 10 Queen Street Place London Ltd	164. Alam JV DP2 (L) Inc	207. Ladang Jati Keningau Sdn Bhd
129. Leatherhead Properties Ltd	165. Theta Edge Berhad	208. Derujaya Sdn Bhd
130. 151 BPR One Ltd	166. Lityan Application Sdn Bhd	209. Kuni Riang Sdn Bhd
131. 151 BPR Two Ltd	167. Impianas Sdn Bhd	210. Halus Riang Sdn Bhd
132. Millstream Property Ltd	168. TH Computers Sdn Bhd	211. TH PELITA Simunjan Sdn Bhd
133. TH Trust	169. TH 2.0 Sdn Bhd	212. TH PELITA Beladin Sdn Bhd
134. THP Enstek Development Sdn Bhd	170. THT Integrated Solutions Sdn Bhd	
135. THP Pelindung Sdn Bhd	171. Sistem Komunikasi Gelombang Sdn Bhd	
136. THP Development Consultancy Sdb Bhd	172. Konsortium Jaya Sdn Bhd	
137. THP Australia Capital Sdn Bhd	173. Advanced Business Solutions (M) Sdn Bhd	
138. TH Connectivity Sdn Bhd	174. Theta Mobile Sdn Bhd	
139. TH Universal Builders Sdn Bhd	175. TH Hotel & Residence Sdn Bhd	
140. THP Sinar Sdn Bhd	176. TH Travel & Services Sdn Bhd	
141. THP Amanah Pty Ltd	177. THP Bay Pavillions Corporation	
	178. TH Hotel Alor Star Sdn Bhd	
	179. TH Global Services Sdn Bhd	
	180. TH Real Estate	
	181. TH Plantations Sdn Bhd	
	182. TH Estates Holdings (Sdn Bhd)	
	183. TH Indo Industries Sdn Bhd	
	184. TH Indopalms Sdn Bhd	

Source: Lembaga Tabung Haji website. Retrieved on 19 January 2019 from https://www.tabunghaji.gov.my/index.php/ms/pelaburan/maklumat-am/pelaburan

3) Khazanah Nasional Berhad (Khazanah)[26]		4) Employee Provident Fund (EPF)[27]
213. Energy : Tenaga Nasional Berhad (TNB) 214. Property : UEM Sunrise Berhad 215. Financial : CIMB Group 216. Financial : Bank Muamalat 217. Telecommunications : Axiata Group Berhad (Axiata) 218. Telecommunications: Telekom Malaysia Berhad ™ 219. Infrastructure & Construction: UEM Group Berhad 220. Infrastructure & Construction : PLUS Malaysia Berhad 221. Infrastructure & Construction : UEM Edgenta Berhad 222. Healthcare : IHH Healthcare Berhad (IHH) 223. Aviation : Malaysia Airlines Berhad (MAB) 224. Aviation: Malaysia Airports Holdings Berhad (MAHB) 225. Innovation & Technology : Fractal Analytics 226. Innovation & Technology :Cainiao Network 227. Innovation & Technology : General Fusion 228. Innovation & Technology : Aemulus Holdings Berhad 229. Innovation & Technology : Alibaba Group's 230. Healthcare & Wellness : Acibadem Healthcare Group 231. Healthcare & Wellness : ReGen Rehabilitation International Sdn Bhd 232. Creative & Media : Astro Malaysia Holdings Berhad (AMH) 233. Financial Services : ACR Capital Holdings Pte Ltd 234. Financial Services : Acibadem Sigorta 235. Financial Services : Sun Life malaysia 236. Property: 8990 Holdings 237. Telecommunications : edotco Group Berhad (edotco)	238. Telecommunications : TIME dotcom Berhad (TIME) 239. Power : Shuaibah Independent Water and Power Project 240. Life Science : Xeraya Capital 241. Sustainable Development : Cenviro Sdn Bhd 242. Sustainable Development : RedT Energy 243. Sustainable Development : Cenergi SEA 244. Agrifood : Blue Archipelago Berhad (BAB) 245. Agrifood : Biotropics Malaysia Berhad 246. Agrifood : Malaysian Agrifood Corporation Berhad (MAFC) 247. Agrifood : The Holstein Milk Company Sdn Bhd (Holstein) 248. Property : Iskandar Investment Berhad (IIB) 249. Property : Medini Iskandar Malaysia Sdn Bhd (MIMSB) 250. Property : Pulau Indah Ventures Sdn Bhd 251. Property : MS Pte Ltd 252. Creative & Media : Granatum Ventures Sdn Bhd 253. Creative & Media : Pinewood Iskandar Malaysia Studios 254. Education : LeapEd Services Sdn Bhd (LeapEd) 255. Leisure & Tourism : Themed Attractions Resorts & Hotels Sdn Bhd (TAR&H)'s	256. Malaysia Building Society Bhd 257. RHB Bank Bhd 258. Malaysian Resources Corporation Bhd 259. Telekom Malaysia Bhd 260. Axiata Group Bhd 261. DiGi.Com Bhd 262. Genting Plantations Bhd 263. MBM Resources Bhd 264. Public Bank Bhd 265. CIMB Group Holdings Bhd 266. IJM Corporation Bhd 267. United Plantations Bhd 268. IJM Plantations Bhd 269. Sunway Reit Bhd 270. Axis Real Estate Investment Bhd 271. Bermaz Auto Bhd 272. Media Prima Bhd 273. BIMB Holdings Bhd 274. KPJ Healthcare Bhd 275. Hong Leong Bank Bhd 276. Malayan Banking Bhd 277. Fraser & Neave Holdings Bhd 278. Syarikat Takaful Malaysia Bhd 279. Cahya Mata Sarawak Bhd 280. Sime Darby Plantation Bhd 281. Kuala Lumpur Kepong Berhad 282. Alliance Bank Malaysia Bhd 283. Tenaga Nasional Bhd 284. Gamuda Bhd 285. Yinson Holdings Bhd

[26]Source: Khazanah website. Retrieved on 19 January 2019 from http://tkr.khazanah.com.my/2017/wp-content/uploads/2018/05/TKR2017.pdf

[27]Source: EPF annual report 2018

5) Armed Forces Fund Board		
286. Boustead Holdings Berhad (BHB)	322. Pharmaniaga LifeScience Sdn Bhd	346. PAB Properties Sdn Bhd
287. Power Cables Malaysia Sdn. Bhd. (PCMSB)	323. Pharmaniaga Logistic Sdn Bhd	347. PAB Property Development Sdn Bhd
288. Irat Properties Sdn. Bhd. (IPSB)	324. Pharmaniaga Manufacturing Bhd	348. AXA Affin General Insurance Bhd
289. Perbadanan Perwira Harta Malaysia (PPHM)	325. Pharmaniaga Marketing Sdn Bhd	349. AXA Affin Life Insurance Berhad
290. Perbadanan Hal Ehwal Bekas Angkatan Tentera (PERHEBAT)	326. Pharmaniaga Research Centre Sdn Bhd	350. Affin-I Nadayu Sdn Bhd KL South Development Sdn Bhd
291. Perwira Niaga Malaysia (PERNAMA)	327. Pharmaniaga Pristine Sdn Bhd	351. Boustead Information Technology Sdn Bhd
292. Affin Holdings Berhad (AHB)	328. Pharmaniaga International Corporation Sdn Bhd	352. Boustead Langkawi Shipyard Sdn Bhd
293. Buroi Mining Sdn Bhd	329. UAC Steel Systems Sdn Bhd	353. Boustead Management Services Sdn Bhd
294. Boustead Heavy Industries Corporation Berhad	330. Applied Agricultural Resources Sdn Bhd	354. Boustead Naval Shipyard Sdn Bhd
295. Boustead Properties Berhad	331. Boustead Wah Seong Sdn Bhd	355. Boustead Penang Shipyard Sdn Bhd
296. Boustead Plantations Berhad	332. BP Malaysia Holdings Sdn Bhd	356. Boustead Petroleum Marketing Sdn Bhd
297. Pharmaniaga Berhad	333. Cadbury Confectionery Malaysia Sdn Bhd	357. Boustead Realty Sdn Bhd
298. UAC Berhad	334. Drew Ameroid (Malaysia) Sdn Bhd Ericsson (Malaysia) Sdn Bhd	358. Boustead Rimba Nilai Sdn Bhd
299. BHIC Defence Technologies Sdn Bhd	335. ABB IT & Services Sdn Bhd	359. Boustead Sedili Sdn Bhd
300. BHIC Defence Techservices Sdn Bhd	ABB Nominee (Asing) Sdn Bhd	360. Boustead Segaria Sdn Bhd
301. BHIC Electronics and Technologies Sdn Bhd	336. ABB Nominee (Tempatan) Sdn Bhd	361. Boustead Shipping Agencies Sdn Bhd
302. BHIC Navaltech Sdn Bhd	337. ABB Trustee Berhad	362. Boustead Sissons Paints Sdn Bhd
303. BHIC Marine Carrier Sdn Bhd	Affin Bank Berhad	363. Boustead Solandra Sdn Bhd
BHIC Allied Defence Technology Sdn Bhd	338. Affin Factors Sdn Bhd	364. Boustead Sungai Manar Sdn Bhd
304. Bounty Crop Sdn Bhd	Affin Capital Services Berhad	365. Boustead Telok Sengat Sdn Bhd
Boustead Advisory and Consultancy	Affin Futures Sdn Bhd	366. Boustead Travel Services Sdn Bhd
305. Services Sdn Bhd	Affin Hwang Investment Bank Berhad	367. Boustead Trunkline Sdn Bhd
Boustead Balau Sdn Bhd	339. Affin Hwang Nominees (Tempatan)	368. Boustead Weld Court Sdn Bhd
Boustead Building Materials Sdn Bhd	340. Sdn Bhd	369. Boustead Weld Quay Sdn Bhd
306. Boustead Construction Sdn Bhd	Affin Hwang Nominees (Asing) Sdn Bhd	370. Cargo Freight Shipping Sdn Bhd
307. Boustead Credit Sdn Bhd	341. Affin Hwang Asset Management Berhad	371. Damansara Entertainment Centre Sdn Bhd
308. Boustead Curve Sdn Bhd	342. Affin Islamic Bank Berhad	372. Dominion Defence & Industries Sdn Bhd
309. Boustead DCP Sdn Bhd	Affin Moneybrokers Sdn Bhd	
310. Cargo Freight Shipping Sdn Bhd	Affin Recoveries Berhad	
311. Damansara Entertainment Centre Sdn Bhd	Affin-ACF Holdings Sdn Bhd	
312. Dominion Defence & Industries Sdn Bhd	Affin-ACF Nominees (Tempatan) Sdn Bhd	
313. Johan Ceramics Berhad	343. BSNCB Nominees (Tempatan) Sdn Bhd	
314. Midas Mayang Sdn Bhd	344. BSNC Nominees (Tempatan) Sdn Bhd	
315. Mutiara Rini Sdn Bhd	345. Perstim Industries Sdn Bhd	
316. Nam Seng Bee Hoon Sdn Bhd		
317. Mecuro Properties Sdn Bhd		
318. Naval and Defence Communication System Sdn Bhd		
319. The University of Nottingham in Malaysia Sdn Bhd		
320. Idaman Pharma Manufacturing Sdn Bhd		
321. Pharmaniaga Biomedical Sdn Bhd		

Source: LTAT website. Retrieved on 19 January 2019 from https://www.ltat.gov.my/borg/LTATAnnualReport2016e.pdf

6) Retirement Fund (Incorporated)[28]	7) Permodalan Nasional Berhad (PNB)[29]
373. KWAP Managed Investment Trust 374. KWAP Managed Investment Trust 2 375. KWAP Managed Investment Trust 3 376. KWAP Managed Investment Trust 4 377. Prima Ekuiti (UK) Limited 378. Prima Harta (Jersey) Unit Trust 379. Prima Harta 2 (Jersey) Unit Trust 380. Prima Harta 3 (Lux) Sàrl 381. Capsquare Tower Sdn Bhd 382. KWEST Sdn Bhd 383. Harta Integra Berkat Sdn Bhd 384. ValueCap Sdn Bhd Malaysia 385. Malakoff Corporation Bhd 386. Prestariang Bhd 387. Persada Mentari Sdn Bhd 388. Vortex Solar Investment Sàrl 389. Tap Crunch International Sdn Bhd 390. Tap Crunch Sdn Bhd 391. 123RF Technology Sdn Bhd 392. Eco World Development Group Berhad 393. Capitaland Malaysia Mall Trust 394. UEM Group Berhad 395. DRB-HICOM Berhad 396. TIME dotcom Berhad 397. Yinson Holdings Berhad 398. Lotte Chemical Titan Holdings Berhad 399. Eastern & Oriental Berhad 400. Globetronics Technology Berhad 401. Inari Amertron Berhad 402. SP Setia Berhad 403. Felda Global Ventures Holdings Berhad 404. Telekom Malaysia Berhad	405. Malayan Banking Berhad 406. Sime Darby Berhad 407. Sime Darby Plantation Berhad 408. Sime Darby Property Berhad 409. SP Setia Berhad 410. UMW Holdings Berhad 411. Velesto Energy Berhad 412. Chemical Company of Malaysia Berhad 413. CCM Duopharma Biotech Berhad 414. MNRB Holdings Berhad 415. Telekom Malaysia Berhad 416. MMC Corporation Berhad 417. BIMB Holdings Berhad 418. Tenaga Nasional Berhad 419. Axiata Group Berhad 420. IJM Corporation Berhad 421. Gamuda Berhad 422. Sapura Energy Berhad 423. Digi.com Berhad 424. Maxis Berhad 425. Petronas Gas Berhad 426. CIMB Groups Holdings Berhad 427. RHB Bank Berhad 428. Fraser & Neave Holdings Berhad 429. Petronas dagangan Berhad 430. IOI corporation Berhad 431. Malaysian Industrial Development Finance Berhad 432. Projek Lintasan Kota Holdings Sdn Bhd 433. Perusahaan otomobil kedua sdn Bhd 434. Boh Plantation Sdn Bhd 435. KAF Securities Sdn Bhd 436. Carrier International Sdn Bhd 437. Akzo Nobel Paints (M) Sdn Bhd 438. Unilever (Malaysia) Holdings Sdn Bhd 439. Carsem (M) Sdn Bhd 440. Goodyear Malaysia Sdn Bhd

[28] Source: Retirement fund website. Retrieved on 19 January 2019 from http://www.kwap.gov.my/EN/UsefulInformation/Publication/Annual%20Reports/KWAP%20Annual%20Report%202017.pdf

[29] Source: PNB Website. Retrieved on 19 January 2019 from http://www.pnb.com.my/pdf/AR/PNBAR2017.pdf

APPENDIX B: List of Final Companies for Sample

1) Malayan Banking Bhd
2) Malaysia Airport Holdings Bhd
3) Sime Darby Bhd
4) Pos Malaysia Bhd
5) UMW Holdings Bhd
6) MISC Bhd
7) CCM Duopharma Biotech Bhd
8) Bintulu Port Holdings Bhd
9) MNRB Holdings Bhd
10) Telekom Malaysia Bhd
11) MMC Corporation Bhd
12) BIMB Holdings Bhd
13) Tenaga Nasional Bhd
14) IJM Corporation Bhd
15) Gamuda Bhd
16) Digi.com Bhd
17) Petronas Gas Bhd
18) RHB Bank Bhd
19) Fraser Neave Holdings Bhd
20) Petronas dagangan Bhd
21) IOI corporation Bhd
22) DRB-HICOM Bhd
23) TIME dotcom Bhd
24) Eastern & Oriental Bhd
25) Affin Bank Bhd
26) Boustead Holdings Bhd
27) TH Plantations Bhd
28) Syarikat Takaful Malaysia Bhd
29) Aeon Co M Bhd
30) PPB Group Bhd
31) Malaysia Building Society Bhd
32) Malaysian Resources Corporation
33) Genting Plantations Bhd
34) MBM Resources Bhd
35) Public Bank Bhd
36) United Plantations Bhd
37) IJM Plantations Bhd
38) Media Prima Bhd
39) KPJ Healthcare Bhd
40) Hong Leong Bank Bhd
41) Cahya Mata Sarawak Bhd
42) Kuala Lumpur Kepong Bhd

APPENDIX C :MM and MAR Result

Table C-1: AAR and CAAR of firms with government institutional holdings 20 days before election and 60 days after election during 12th general election

Day	MM				MAR			
	AAR	t-value	CAAR	t-value	AAR	t-value	CAAR	t-value
-20	-0.011	-0.775	-0.011	0.000	-0.011	-0.126	-0.011	-0.126
-19	0.001	0.028	-0.010	-1.253	0.001	0.005	-0.010*	-1.752
-18	-0.007	-0.205	-0.017**	-2.358	-0.007	-0.030	-0.016**	-2.326
-17	-0.002	-0.139	-0.019**	-2.627	-0.002	-0.021	-0.019**	-2.604
-16	0.000	0.023	-0.019**	-2.225	0.001	0.007	-0.018**	-2.116
-15	0.002	0.163	-0.017*	-1.684	0.003	0.026	-0.015	-1.528
-14	-0.005	-0.261	-0.021**	-2.158	-0.005	-0.038	-0.020*	-1.984
-13	-0.001	-0.069	-0.023**	-2.283	-0.001	-0.007	-0.021**	-2.058
-12	-0.001	-0.020	-0.023**	-2.298	0.000	0.000	-0.021*	-2.008
-11	0.001	0.056	-0.022**	-2.097	0.002	0.012	-0.019*	-1.749
-10	-0.009	-0.368	-0.031**	-2.528	-0.009	-0.054	-0.028**	-2.199
-9	0.004	0.143	-0.027*	-1.942	0.004	0.023	-0.024	-1.672
-8	0.000	-0.016	-0.027*	-1.961	0.000	-0.001	-0.024	-1.678
-7	0.000	0.027	-0.027*	-1.900	0.001	0.007	-0.023	-1.595
-6	0.011	0.350	-0.016	-0.837	0.011	0.056	-0.012	-0.605
-5	0.005	0.301	-0.010	-0.526	0.006	0.052	-0.006	-0.274
-4	-0.002	-0.082	-0.012	-0.603	-0.001	-0.008	-0.007	-0.323
-3	0.003	0.124	-0.009	-0.446	0.004	0.023	-0.003	-0.131
-2	-0.006	-0.405	-0.015	-0.727	-0.006	-0.062	-0.009	-0.420
-1	-0.001	-0.050	-0.016	-0.790	-0.001	-0.006	-0.010	-0.467
0	0.006	0.129	-0.010	-0.455	0.009	0.017	-0.001	-0.041
1	-0.001	-0.052	-0.011	-0.523	-0.002	-0.009	-0.003	-0.123
2	-0.001	-0.047	-0.013	-0.575	-0.001	-0.009	-0.004	-0.184
3	0.001	0.037	-0.012	-0.539	0.002	0.011	-0.003	-0.114
4	-0.005	-0.186	-0.017	-0.770	-0.005	-0.027	-0.008	-0.325
5	-0.005	-0.232	-0.022	-0.975	-0.004	-0.026	-0.012	-0.501
6	0.004	0.111	-0.018	-0.784	0.004	0.018	-0.008	-0.324
7	-0.005	-0.265	-0.023	-0.988	-0.005	-0.041	-0.013	-0.519
8	0.003	0.197	-0.020	-0.833	0.004	0.032	-0.009	-0.371
9	0.006	0.374	-0.014	-0.559	0.006	0.058	-0.003	-0.120
10	0.016	0.728	0.002	0.065	0.016	0.104	0.013	0.416
11	-0.007	-0.177	-0.005	-0.153	-0.007	-0.029	0.006	0.185
12	-0.010	-0.328	-0.014	-0.456	-0.010	-0.049	-0.004	-0.126
13	0.001	0.056	-0.013	-0.409	0.002	0.009	-0.003	-0.079
14	-0.012	-0.392	-0.025	-0.748	-0.012	-0.060	-0.015	-0.423
15	0.003	0.130	-0.022	-0.651	0.004	0.023	-0.011	-0.319
16	-0.011	-0.625	-0.033	-0.926	-0.010	-0.096	-0.022	-0.593
17	0.000	0.034	-0.032	-0.913	0.001	0.009	-0.021	-0.569
18	0.010	0.512	-0.023	-0.610	0.010	0.090	-0.010	-0.275
19	0.002	0.137	-0.021	-0.556	0.002	0.024	-0.008	-0.215
20	0.004	0.289	-0.017	-0.458	0.004	0.045	-0.004	-0.115
21	-0.001	-0.081	-0.018	-0.489	-0.001	-0.011	-0.005	-0.142
22	0.011	0.491	-0.007	-0.180	0.011	0.074	0.006	0.149
23	-0.016	-0.776	-0.023	-0.554	-0.016	-0.144	-0.011	-0.244

24	-0.005	-0.207	-0.028	-0.660	-0.004	-0.030	-0.015	-0.342
25	0.023	0.609	-0.005	-0.110	0.023	0.097	0.008	0.168
26	-0.004	-0.215	-0.009	-0.196	-0.004	-0.033	0.004	0.083
27	-0.005	-0.343	-0.014	-0.289	-0.005	-0.054	0.000	-0.008
28	0.005	0.296	-0.009	-0.175	0.006	0.046	0.005	0.106
29	0.000	0.011	-0.008	-0.171	0.000	0.002	0.005	0.110
30	-0.004	-0.177	-0.012	-0.250	-0.004	-0.026	0.002	0.032
31	0.007	0.461	-0.005	-0.099	0.008	0.073	0.009	0.181
32	-0.009	-0.496	-0.014	-0.271	-0.009	-0.083	0.001	0.010
33	-0.006	-0.439	-0.020	-0.392	-0.006	-0.068	-0.006	-0.108
34	0.006	0.395	-0.014	-0.269	0.006	0.063	0.001	0.017
35	-0.015	-1.052	-0.029	-0.547	-0.015	-0.161	-0.014	-0.265
36	0.010	0.434	-0.019	-0.349	0.011	0.070	-0.004	-0.068
37	-0.002	-0.071	-0.021	-0.381	-0.001	-0.009	-0.005	-0.094
38	0.000	0.022	-0.020	-0.376	0.001	0.006	-0.005	-0.085
39	0.010	0.546	-0.011	-0.193	0.010	0.091	0.005	0.097
40	0.005	0.240	-0.005	-0.099	0.005	0.038	0.011	0.191
41	-0.003	-0.151	-0.008	-0.145	-0.002	-0.022	0.008	0.148
42	-0.002	-0.088	-0.010	-0.175	-0.002	-0.014	0.007	0.120
43	0.004	0.289	-0.005	-0.094	0.005	0.046	0.012	0.205
44	-0.006	-0.517	-0.011	-0.197	-0.006	-0.080	0.006	0.104
45	-0.010	-0.701	-0.021	-0.374	-0.010	-0.101	-0.004	-0.072
46	0.010	0.508	-0.011	-0.191	0.011	0.082	0.006	0.108
47	0.004	0.265	-0.007	-0.122	0.004	0.042	0.011	0.179
48	-0.017	-0.713	-0.024	-0.397	-0.017	-0.111	-0.006	-0.101
49	-0.004	-0.281	-0.027	-0.457	-0.004	-0.041	-0.010	-0.158
50	-0.004	-0.290	-0.031	-0.523	-0.004	-0.042	-0.013	-0.220
51	0.012	0.733	-0.020	-0.321	0.012	0.114	-0.001	-0.020
52	0.001	0.055	-0.019	-0.312	0.001	0.013	0.000	-0.005
53	0.003	0.190	-0.016	-0.256	0.004	0.031	0.003	0.054
54	-0.005	-0.254	-0.021	-0.344	-0.005	-0.037	-0.002	-0.029
55	0.000	-0.004	-0.021	-0.344	0.000	0.002	-0.002	-0.025
56	-0.005	-0.108	-0.026	-0.417	-0.004	-0.016	-0.006	-0.094
57	0.004	0.167	-0.022	-0.353	0.004	0.030	-0.002	-0.024
58	-0.004	-0.219	-0.026	-0.416	-0.004	-0.031	-0.005	-0.083
59	-0.021	-0.613	-0.047	-0.714	-0.021	-0.098	-0.026	-0.393
60	-0.002	-0.061	-0.048	-0.737	-0.001	-0.006	-0.027	-0.393

A superscript *, ** or *** indicates significance at 10 percent,5 percent or 1 percent confidence level, respectively

Table C-2 : AAR and CAAR of firms with government institutional holdings 20 days before election and 60 days after election during 13th general election

Day	MM				MAR			
	AAR	t-value	CAAR	t-value	AAR	t-value	CAAR	t-value
-20	0.002	0.218	0.002	0.218	0.002	0.036	0.002	0.036
-19	0.003	0.266	0.005	5.899	0.004	0.042	0.006***	6.151
-18	-0.001	-0.121	0.004	1.261	-0.001	-0.017	0.005	1.366
-17	-0.001	-0.090	0.003	0.772	-0.001	-0.014	0.003	0.865
-16	-0.003	-0.222	0.000	0.028	-0.003	-0.036	0.001	0.098
-15	0.001	0.094	0.001	0.217	0.001	0.020	0.002	0.343
-14	-0.002	-0.214	-0.001	-0.175	-0.002	-0.030	0.000	-0.012
-13	0.000	-0.055	-0.001	-0.260	0.000	-0.006	0.000	-0.075
-12	0.003	0.235	0.002	0.297	0.003	0.035	0.003	0.439
-11	0.002	0.247	0.004	0.658	0.003	0.041	0.005	0.823
-10	-0.003	-0.267	0.001	0.203	-0.003	-0.038	0.003	0.381
-9	-0.008	-0.318	-0.006	-0.600	-0.007	-0.048	-0.005	-0.457
-8	0.000	0.014	-0.006	-0.593	0.000	0.009	-0.004	-0.422
-7	-0.002	-0.228	-0.008	-0.789	-0.002	-0.035	-0.006	-0.617
-6	-0.001	-0.058	-0.009	-0.862	-0.001	-0.007	-0.007	-0.672
-5	0.001	0.133	-0.008	-0.762	0.001	0.022	-0.006	-0.570
-4	-0.003	-0.237	-0.010	-1.004	-0.002	-0.034	-0.008	-0.795
-3	-0.005	-0.376	-0.015	-1.352	-0.005	-0.059	-0.013	-1.153
-2	0.000	-0.044	-0.015	-1.385	0.000	-0.002	-0.013	-1.163
-1	0.005	0.379	-0.010	-0.790	0.006	0.067	-0.007	-0.550
0	0.000	0.012	-0.010	-0.767	-0.001	-0.004	-0.008	-0.609
1	0.005	0.274	-0.005	-0.364	0.004	0.038	-0.003	-0.252
2	-0.002	-0.174	-0.007	-0.540	-0.002	-0.024	-0.006	-0.414
3	0.013	0.648	0.006	0.294	0.013	0.105	0.008	0.396
4	0.005	0.258	0.011	0.549	0.005	0.039	0.013	0.647
5	0.003	0.169	0.014	0.718	0.003	0.023	0.016	0.806
6	-0.006	-0.258	0.008	0.402	-0.006	-0.039	0.010	0.497
7	0.007	0.390	0.015	0.698	0.007	0.063	0.017	0.796
8	0.005	0.235	0.020	0.909	0.005	0.038	0.023	1.022
9	0.007	0.492	0.027	1.178	0.007	0.075	0.030	1.289
10	0.009	0.367	0.036	1.477	0.009	0.055	0.038	1.582
11	-0.005	-0.344	0.031	1.228	-0.005	-0.053	0.033	1.329
12	-0.001	-0.037	0.030	1.198	0.000	-0.004	0.033	1.308
13	-0.002	-0.166	0.028	1.097	-0.002	-0.021	0.031	1.223
14	0.007	0.434	0.034	1.330	0.007	0.069	0.038	1.459
15	0.004	0.225	0.038	1.479	0.004	0.034	0.042	1.606
16	0.004	0.254	0.042	1.624	0.004	0.038	0.046*	1.750
17	0.000	-0.020	0.042	1.612	0.000	0.001	0.046*	1.751
18	0.004	0.286	0.046*	1.754	0.004	0.046	0.050*	1.900
19	-0.003	-0.128	0.043	1.600	-0.003	-0.018	0.047*	1.754
20	0.001	0.055	0.044	1.646	0.001	0.008	0.048*	1.798
21	0.000	-0.024	0.043	1.627	0.000	-0.002	0.048*	1.786
22	-0.001	-0.046	0.043	1.593	-0.001	-0.005	0.047*	1.763
23	0.008	0.252	0.050*	1.826	0.008	0.038	0.055*	1.992
24	0.006	0.268	0.056*	2.008	0.006	0.040	0.061**	2.170
25	-0.007	-0.433	0.049*	1.694	-0.007	-0.059	0.054*	1.866
26	-0.005	-0.340	0.044	1.493	-0.005	-0.050	0.049	1.671
27	-0.001	-0.044	0.043	1.462	0.000	-0.001	0.049	1.668

28	-0.004	-0.212	0.040	1.321	-0.004	-0.034	0.045	1.514
29	-0.005	-0.352	0.035	1.131	-0.005	-0.055	0.040	1.318
30	0.004	0.315	0.039	1.256	0.004	0.049	0.044	1.445
31	0.004	0.224	0.042	1.365	0.004	0.036	0.048	1.559
32	0.000	0.018	0.042	1.374	0.001	0.006	0.049	1.579
33	-0.006	-0.275	0.036	1.140	-0.006	-0.041	0.043	1.350
34	-0.005	-0.303	0.031	0.962	-0.005	-0.041	0.038	1.187
35	-0.001	-0.035	0.030	0.945	0.000	-0.002	0.038	1.181
36	0.004	0.248	0.035	1.071	0.004	0.036	0.042	1.304
37	0.004	0.244	0.038	1.180	0.004	0.035	0.046	1.411
38	0.001	0.039	0.039	1.208	0.001	0.004	0.046	1.430
39	-0.001	-0.066	0.038	1.170	-0.001	-0.009	0.045	1.395
40	0.000	0.006	0.038	1.172	0.000	0.004	0.046	1.404
41	0.002	0.134	0.040	1.234	0.002	0.022	0.048	1.473
42	0.002	0.192	0.042	1.282	0.002	0.031	0.049	1.523
43	0.003	0.271	0.045	1.373	0.003	0.043	0.053	1.619
44	-0.001	-0.071	0.044	1.347	0.000	-0.006	0.052	1.603
45	-0.003	-0.253	0.041	1.257	-0.003	-0.038	0.050	1.513
46	0.001	0.058	0.042	1.279	0.001	0.010	0.050	1.539
47	-0.005	-0.395	0.037	1.099	-0.005	-0.061	0.045	1.350
48	0.001	0.057	0.037	1.116	0.001	0.010	0.046	1.368
49	0.002	0.180	0.039	1.182	0.002	0.030	0.048	1.438
50	0.000	0.015	0.040	1.187	0.000	0.004	0.048	1.448
51	0.000	-0.031	0.039	1.178	0.000	-0.003	0.048	1.442
52	0.005	0.407	0.044	1.313	0.005	0.063	0.053	1.578
53	-0.003	-0.460	0.041	1.211	-0.003	-0.072	0.050	1.474
54	-0.002	-0.214	0.039	1.163	-0.001	-0.030	0.049	1.431
55	0.001	0.084	0.040	1.187	0.001	0.013	0.049	1.455
56	-0.001	-0.104	0.039	1.145	-0.001	-0.015	0.048	1.414
57	0.000	-0.048	0.039	1.133	0.000	-0.004	0.048	1.408
58	0.000	0.047	0.039	1.144	0.001	0.010	0.048	1.424
59	-0.002	-0.169	0.036	1.068	-0.002	-0.023	0.046	1.356
60	0.001	0.137	0.037	1.096	0.001	0.026	0.047	1.356

A superscript *, ** or *** indicates significance at 10 percent,5 percent or 1 percent confidence level, respectively

Table C-3 :AAR and CAAR of firms with government institutional holdings 20 days before election and 60 days after election during 14th general election

Day	MM				MAR			
	AAR	t-value	CAAR	t-value	AAR	t-value	CAAR	t-value
-20	0.012	0.457	0.012	0.457	0.011	0.063	0.011	0.063
-19	0.002	0.068	0.014*	1.947	0.001	0.006	0.012*	1.739
-18	-0.006	-0.306	0.008	0.675	-0.006	-0.053	0.006	0.502
-17	0.003	0.248	0.011	0.975	0.003	0.034	0.008	0.764
-16	-0.003	-0.196	0.008	0.703	-0.003	-0.039	0.005	0.431
-15	-0.001	-0.099	0.007	0.582	-0.002	-0.021	0.003	0.268
-14	-0.001	-0.095	0.005	0.459	-0.002	-0.019	0.001	0.109
-13	-0.003	-0.178	0.002	0.182	-0.004	-0.037	-0.003	-0.231
-12	0.002	0.150	0.004	0.322	0.001	0.019	-0.001	-0.113
-11	-0.002	-0.133	0.002	0.157	-0.002	-0.021	-0.004	-0.295
-10	0.001	0.119	0.003	0.273	0.001	0.017	-0.002	-0.183
-9	0.000	-0.019	0.003	0.250	0.000	-0.004	-0.003	-0.216
-8	0.004	0.259	0.007	0.553	0.004	0.035	0.001	0.066
-7	0.000	-0.014	0.007	0.538	-0.001	-0.010	0.000	-0.011
-6	0.005	0.234	0.011	0.854	0.004	0.030	0.004	0.277
-5	0.005	0.255	0.017	1.186	0.005	0.039	0.009	0.632
-4	-0.003	-0.203	0.014	0.968	-0.003	-0.037	0.006	0.400
-3	0.004	0.321	0.018	1.212	0.004	0.046	0.010	0.637
-2	0.001	0.070	0.019	1.259	0.001	0.010	0.010	0.677
-1	-0.002	-0.114	0.017	1.128	-0.003	-0.029	0.007	0.486
0	-0.005	-0.070	0.012	0.718	-0.006	-0.012	0.002	0.093
1	0.005	0.233	0.017	0.990	0.005	0.032	0.006	0.355
2	0.003	0.088	0.019	1.137	0.002	0.009	0.008	0.458
3	0.001	0.031	0.021	1.226	0.001	0.004	0.009	0.523
4	-0.016	-0.277	0.004	0.169	-0.017	-0.043	-0.008	-0.334
5	-0.003	-0.071	0.001	0.045	-0.003	-0.012	-0.011	-0.472
6	0.002	0.090	0.004	0.148	0.002	0.013	-0.009	-0.377
7	0.011	0.322	0.015	0.562	0.012	0.060	0.003	0.104
8	0.006	0.298	0.021	0.779	0.007	0.045	0.009	0.336
9	-0.004	-0.202	0.017	0.619	-0.005	-0.042	0.004	0.146
10	0.011	0.334	0.028	0.948	0.011	0.056	0.015	0.495
11	-0.005	-0.108	0.023	0.758	-0.004	-0.012	0.011	0.363
12	-0.003	-0.092	0.020	0.663	-0.004	-0.020	0.007	0.235
13	0.006	0.270	0.026	0.861	0.005	0.035	0.013	0.406
14	0.007	0.340	0.033	1.065	0.006	0.049	0.019	0.599
15	0.004	0.233	0.037	1.186	0.003	0.031	0.022	0.705
16	0.001	0.053	0.038	1.217	0.000	-0.001	0.022	0.699
17	0.003	0.170	0.041	1.303	0.002	0.019	0.024	0.760
18	0.001	0.044	0.041	1.328	0.001	0.004	0.025	0.777
19	-0.003	-0.161	0.039	1.236	-0.003	-0.029	0.022	0.678
20	0.008	0.354	0.047	1.456	0.008	0.056	0.030	0.900
21	0.004	0.247	0.051	1.579	0.004	0.034	0.033	1.008
22	0.000	-0.016	0.051	1.570	-0.001	-0.006	0.033	0.987
23	0.001	0.042	0.052	1.602	0.001	0.007	0.034	1.021
24	0.004	0.168	0.055*	1.707	0.004	0.029	0.038	1.134
25	0.007	0.427	0.062*	1.893	0.007	0.065	0.044	1.315
26	-0.005	-0.213	0.057*	1.696	-0.005	-0.031	0.039	1.139
27	0.004	0.310	0.061*	1.822	0.004	0.042	0.043	1.249

28	0.004	0.344	0.066*	1.946	0.004	0.048	0.047	1.373
29	-0.002	-0.115	0.064*	1.890	-0.002	-0.022	0.045	1.308
30	0.002	0.137	0.066*	1.951	0.002	0.019	0.047	1.363
31	-0.001	-0.093	0.065*	1.905	-0.002	-0.019	0.045	1.306
32	-0.009	-0.431	0.056	1.584	-0.010	-0.093	0.035	0.973
33	0.000	0.016	0.056	1.590	0.000	-0.001	0.035	0.971
34	0.006	0.287	0.062*	1.734	0.005	0.042	0.041	1.107
35	0.004	0.210	0.066*	1.844	0.003	0.026	0.044	1.197
36	-0.003	-0.246	0.063*	1.736	-0.004	-0.042	0.040	1.082
37	0.005	0.234	0.068*	1.863	0.005	0.046	0.045	1.216
38	-0.005	-0.369	0.062*	1.696	-0.006	-0.066	0.039	1.041
39	0.001	0.089	0.063*	1.724	0.000	0.001	0.040	1.044
40	-0.007	-0.497	0.056	1.501	-0.007	-0.081	0.032	0.828
41	0.007	0.181	0.063	1.661	0.006	0.023	0.038	0.970
42	0.000	-0.014	0.063	1.652	-0.001	-0.009	0.037	0.933
43	0.002	0.129	0.065*	1.699	0.001	0.013	0.038	0.963
44	-0.001	-0.075	0.063	1.663	-0.002	-0.018	0.036	0.909
45	0.000	0.027	0.064	1.675	0.000	-0.004	0.035	0.896
46	-0.001	-0.044	0.063	1.637	-0.002	-0.010	0.033	0.843
47	0.001	0.063	0.063	1.654	0.000	0.004	0.033	0.850
48	0.004	0.243	0.067*	1.752	0.003	0.032	0.037	0.934
49	0.004	0.179	0.071*	1.842	0.003	0.022	0.040	1.008
50	0.002	0.145	0.072*	1.882	0.001	0.015	0.041	1.034
51	-0.003	-0.202	0.070*	1.810	-0.003	-0.038	0.038	0.953
52	0.004	0.273	0.074*	1.908	0.003	0.035	0.041	1.038
53	-0.002	-0.128	0.072*	1.845	-0.003	-0.023	0.038	0.966
54	-0.008	-0.573	0.063	1.591	-0.009	-0.110	0.029	0.717
55	0.001	0.091	0.065	1.622	0.001	0.007	0.030	0.733
56	0.000	0.024	0.065	1.631	0.000	0.002	0.030	0.738
57	0.001	0.093	0.066	1.665	0.001	0.009	0.031	0.758
58	-0.004	-0.268	0.063	1.561	-0.004	-0.046	0.027	0.652
59	0.002	0.104	0.065	1.618	0.001	0.010	0.028	0.687
60	-0.003	-0.221	0.062	1.543	-0.004	-0.045	0.025**	2.027

A superscript *, ** or *** indicates significance at 10 percent,5 percent or 1 percent confidence level, respectively

APPENDIX D: Regression Result

Variables	CAR (0,5)			CAR (0,10)		
	Coefficient	t-statistics	Prob.	Coefficient	t-statistics	Prob.
Constant	0.0781	0.88	0.383	0.2394***	2.58	0.011
IO	0.0224	0.91	0.366	0.0213	0.93	0.355
SIZE	-0.0103	-0.89	0.378	-0.0279***	-2.25	0.026
LEVERAGE	-0.1193*	-1.83	0.070	-0.1388***	-2.21	0.029
PROFITABILITY	0.0852	0.70	0.483	-.1140	-0.98	0.331
Adjusted R-squared	0.0102			0.033		
F-Statistics	1.40			2.34		
Number of observations	126			126		
Durbin-Watson stat	1.775121			1.944688		

A superscript *, ** or *** indicates significance at 10 percent,5 percent or 1 percent confidence level, respectively

APPENDIX E : Segregate Regression Analysis Result with Different Event

	CAR(0,5)						CAR(0,10)					
	12th GE		13th GE		14th GE		12th GE		13th GE		14th GE	
	Coefficient	Prob	Coefficient	Prob	Coefficient	Prob	Coefficient	Prob	Coefficient	Prob	Coefficient	Prob
Constant	0.0271	0.8040	0.2332	0.1500	-0.3318	0.4720	0.0086	0.9370	0.5141**	0.0360	0.0740	0.8470
IO	0.0231	0.4280	-0.0606	0.3020	0.2960	0.1940	0.0166	0.5610	-0.0976*	0.2340	0.2001	0.3060
SIZE	-0.0026	0.8800	-0.0201	0.2640	0.0115	0.7750	0.0033	0.8470	-0.0496	0.0560	-0.0268	0.4490
LEVERAGE	-0.2537	0.0730*	-0.0940	0.3490	0.0372	0.7970	-0.1692*	0.0850	-0.1901	0.1880	-0.0770	0.5650
ROA	0.3748	0.0000***	-0.1616	0.1140	-0.2763	0.1100	0.1726	0.1040	-0.2744**	0.0310	-0.4566***	0.0040

A superscript *, ** or *** indicates significance at 10 percent,5 percent or 1 percent confidence level, respectively